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MILITARY SCIENCE, THEORY, STRATEGY

DEVELOPMENT OF THE SOCIALIST ARMY

Moscow SOVIET MILITARY REVIEW in English No 9, Sep 80 pp 16-18

[Article published under the heading "Marxism-Leninism on War and the Army" by Capt 1st Rank V. Puzik, C. Sc. (Philosophy): "Laws Governing the Development of the Socialist Army"]

[Text]

The Soviet Army was created for the armed defence of the achievements of socialism against the intrigues of international imperialism. It was formed as an important instrument against aggressive imperialist policy. The specific character of the socialist army revealed itself in full scope in the laws of its development. The present article deals with the main laws governing the development of the socialist army.

In producing the theory of socialist revolution Karl Marx and Frederick Engels wrote that the proletariat might have to fight the bourgeoisie either with peaceful or military means. After the revolution triumphed the task of the working class would be to create a military organisation of its own on the basis of a state of proletarian dictatorship. The Paris Commune of 1871 showed that this conclusion was absolutely valid. Karl Marx pointed out that once the proletariat rose in insurrection its aim was above all to break down the bureaucratic state machine, to create an army of its own and to take determined action against the forces of the bourgeoisie resisting the forces of revolution.

As soon as the Great October Socialist Revolution triumphed the proletariat immediately proceeded with the execution of the practical task of creating a military organisation for the armed defence of the achievements of socialism. In analysing the concrete conditions that took shape after the Soviet state was formed, V. I. Lenin said: "No revolution is worth anything unless it can defend itself." The experience Soviet socialist society has acquired over a period of more than sixty years has fully corroborated the truth of Lenin's ideas.

Two bloody wars — the Civil War of 1918-20 and the Great Patriotic War of 1941-45 — proved to the world that the attempts of world imperialism to strangle by armed force the country of triumphant socialism were doomed to failure. An army which expresses the fundamental interests of the working class, of the whole people, an army that enjoys their unqualified support is invincible.

With the formation of a world system of socialism, the collapse of imperialist colonial policy and the adoption of socialist orientation by several developing countries of Asia, Africa and Latin America the historical experience the Soviet Union acquired in the creation of a proletarian military organisation has gained ever greater importance. The working people of Vietnam, Cuba and a number of other countries have taken full advantage of this experience in building up their own armed forces. The 25th Congress of the CPSU pointed out that the Chilean tragedy "has been a forceful reminder that a revolution must know how to defend itself."

Military theorists of imperialism claim that the army of a modern bourgeois state is an "above class force" which expresses the interests of the nation as a whole. This is a flagrant lie. History has shown that the army of a bourgeois state has always been and continues to be an instrument of the policy of the ruling class, not of the people. The economic and political interests of the ruling class determine the social basis of a bourgeois army. Karl Marx refers to it as an omnipresent organ of state power.

The reactionary, aggressive nature of imperialism has not changed at all. This means that the socio-political nature of bourgeois armies has remained unchanged too. As in the past they stand on guard over the interests of the exploiters. This is manifested in particular in the formation of the military-industrial complex, which is an alliance of professional warlords with capitalist monopolies. This alliance which profits from the manufacture of munitions, has

become a sort of a state within a state. It has acquired self-contained power.

Socialist armies are intended to accomplish missions of a totally different order. With respect to their socio-class structure and way of life they are a faithful copy of the socialist state. They develop in step with the advance of the political organisation of socialist society. V. I. Lenin said:

"The development of our army led to successful results only because it was carried on in the spirit of general Soviet organisation, on the basis of class relations that affect all development."

The experience the Soviet Union and other socialist countries have accumulated in military development shows that guidance of the armed forces by the respective Communist Parties is a fundamental law of their development. The objective character of this law stems from the purpose of the Communist Party, which exists for the people and serves the people; it stems from the political system of socialism, the Communist Party being the core of the socialist system.

The Party works out the principles of military development, it substantiates the aims and tasks which are formulated and amended at every stage of socialist construction. The Party effects guidance of state bodies to provide the Armed Forces with all they may need to live up to their duty according to the Constitution, conducts organisational, Party-political and ideological work in the interests of the Armed Forces. In pursuit of these aims the Party has established political organs and set up a broad network of Party organisations in the army and navy.

The specific character of the socialist army is conditioned among other things, by socialist ideological relations. These are manifested in the Marxist-Leninist world outlook of the officers and men, in the socialist content of the entire system of training and education in the Armed Forces, in the functioning and development of all forms of socialist social consciousness: political and legal ideas, ethics, art, and science in application to the tasks of the armed defence of socialism.

In recent years to Soviet experience in military development has been added that accumulated by other states belonging to the socialist community. The armies of other socialist states, created under the guidance of Communist and Workers' Parties, are reliably protecting socialism. Both in years of severe trial and in the period of peaceful development they have proved to be a worthy product of the working class, peasantry and intelligentsia of their respective countries. The personnel of the fraternal armies are educated in the spirit of respect for the peoples of other countries. They realise their internationalist duty to the working class and other working people of

the whole world. They are educated in the spirit of fraternal assistance to peoples fighting for emancipation from class oppression and national liberation. These armies have experienced officers and other personnel and are provided with the weaponry and equipment essential for the fulfilment of their combat missions.

The internal function of the army is withering away, while the external function is developing further. This process is taking place as the army is being turned from an instrument of a state of proletarian dictatorship into an instrument of a state of the whole people. This development is another law of socialist armies.

By claiming that the armed forces of a capitalist state are outside of politics, bourgeois theorists try to conceal their real functions. Life has long proved this assertion false. The real functions of the armed forces of imperialist states reveal its unsoundness. They have two functions: an internal and external function. The former stems from the internal policy pursued by the state-monopoly bourgeoisie. In its hands the army is an instrument of forceful regulation of political relations, an instrument for imposing on the country the "order" that suits the ruling class. According to "The National Guardsman," a US military journal, in the period from early 1965 to May 1979 the US Army was employed 290 times to suppress anti-government action by Americans.

The other function of the armed forces is connected with the foreign policy of imperialist states, the policy of seizing foreign territories, new markets and fighting the national-liberation movements. The US armed forces present a vivid example of the practical implementation of their external function in pursuit of imperialist interests. In the period from the turn of the century to the Second World War US imperialism performed at least 50 acts of armed aggression, armed attacks on other peoples and acts of outright plunder. According to the Brookings Institute, since the Second World War the US armed forces have been used in more than 200 cases to exert pressure on governments in other countries that were not to the taste of US imperialism or to suppress the actions of the progressives.

As distinguished from the armies of bourgeois states the functions of socialist armies undergo a process of evolution as a result of the transformation of the state of proletarian dictatorship into a state of the whole people.

The army of a socialist state also performs two functions: one internal, the other external. However, it executes them on a qualitatively different socio-economic and political basis. As long as exploiting classes exist in the country the socialist army defends the interests of the working people. The socialist army performs this internal function in various forms, depending on the conditions in which the socialist revolution takes place. In some countries, such as Soviet Russia, Korea and Vietnam, the new type armies had to wage a prolonged armed struggle against the exploiters who had been overthrown and foreign interventionists. In

the countries of Central and South-Eastern Europe the armies helped prevent the outbreak of civil wars during the establishment of the people's government.

Soviet experience has shown that as the state of proletarian dictatorship grows over into a state of the whole people the socio-political background for the army's internal function disappears. The army is retained as an instrument of defence of the Socialist Homeland against possible attacks by aggressors. The Programme of the CPSU reads in part:

"In terms of internal conditions, the Soviet Union needs no army."

It follows that the internal function of the socialist army withers away as a result of changes occurring in social class relations.

The external function of a socialist army is the cardinal function. It is designed to safeguard the country against the danger that threatens socialist and communist construction coming from imperialism.

Today the external function of the socialist army is logically broadened and deepened. This has been reflected, in particular, in the Warsaw Treaty Organisation, the military political alliance of the fraternal countries.

Socialist countries render all-round support, military if necessary, to countries that have freed themselves from dependence on imperialism and have chosen the road of socialist orientation. They rendered the necessary aid to Cuba, Ethiopia, Angola and a number of other countries. The aid the Soviet Armed Forces have rendered Afghanistan in repelling external aggression is an instance of their internationalist essence.

The mighty defence potential of the armies of the countries belonging to the socialist community is a guarantee of peace. Comrade L. I. Brezhnev has repeatedly said that love of peace and readiness to administer a powerful rebuff to the aggressor are fused together in our policy. This means that the efforts of the socialist armies to preserve peace and promote the policy of peaceful coexistence are inseparably combined with defence of the sovereignty and territorial integrity of the socialist countries.

The indissoluble unity of the army and the people is an imperative law of development and advancement of the socialist army. Unlike the armies of capitalist states, which

serve the interests of the bourgeoisie, the armed forces of a socialist state defend the interests of the people. V. I. Lenin repeatedly said that socialist unity of the army and the people was an outstanding achievement of the Great October Socialist Revolution. Marxist-Leninist ideology forms the ideological foundation of this unity. It moulds in the builders and defenders of the new society a scientific, communist world outlook which reveals the need to defend the Socialist Homeland. The unity of the army and the people manifested itself with unprecedented force during the ordeal of the last war. Responding to the call of the Party millions of Soviet people rose like one man to defend the Socialist Homeland.

The unity of the Soviet Armed Forces and the Soviet people is a potent factor of combat readiness in present-day conditions. The armed forces, forming an inseparable part of Soviet society, fully reflect its social structure. Here are a few convincing figures which bourgeois ideologists never refer to: 56 per cent of Soviet servicemen worked before their call-up in industry, transport and construction and about 30 per cent — in agriculture; 13 per cent come from families of office employees (intellectuals) or were students.

The officers are also inseparably linked with the masses of people. Any citizen of the USSR may become an officer, if he has the necessary political, moral and professional qualifications.

The people render all-round support to their Armed Forces. They outfit the fighting services with first class weaponry and other equipment, they provide the forces with all that is necessary for life and combat activity. The socialist armies in turn are boundlessly devoted to their peoples and are ready at all times to take action to defend their socialist achievements.

The laws governing the creation and development of the socialist army are of universal character. They operate not only in the USSR and other socialist countries, but also in countries whose people have chosen the road of socialist development. Knowledge of these laws and of the specific ways in which they manifest themselves in every socialist country is a major factor contributing to scientifically based guidance of the development and improvement of socialist armies and their maintenance in a state of combat readiness and combat efficiency.

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MILITARY SCIENCE, THEORY, STRATEGY

SURPRISE FACTOR IN WARFARE

MOSCOW SOVIET MILITARY REVIEW in English No 9, Sep 80 pp 27-29

[Article by Col B. Frolov, Cand. Sc. (History): "Surprise"]

[Text]

Surprise is one of the most important principles of military art. This principle consists in choosing the time, means and methods of combat actions allowing to deliver a surprise blow at the enemy and thus to a certain extent to paralyse his will to resist. Surprise gives the possibility to achieve maximum result with minimum spending of manpower, equipment and time.

Surprise, however, by itself does not guarantee final success, it only creates a favourable situation which must be skilfully used for the decisive defeat of the enemy. One can rely on success of a surprise action only if the conditions for achieving it are planned in advance and it is skilfully carried out.

Depending on the scale of combat actions surprise may be strategical, operational or tactical.

During the Great Patriotic War (1941-45) the Soviet forces successfully used the surprise factor in various conditions of the combat situation.

One of the most important ways of achieving surprise is to mislead the enemy as to one's own intentions. For example, when the Vistula-Oder operation (January-February 1945) began, specially detailed infantry platoons carried out a sham attack along the entire front of the 5th Guards Army (Commander Colonel-General A. Zhedov) 30 minutes before the end of the artillery bombardment. The enemy considered these actions as passage to the offensive by the main forces and hurriedly withdrawing his troops from shells to repulse it, sustained heavy losses from the fire of the Soviet artillery. Thus, favourable conditions were provided for breaking through the strong enemy defences.

An important role also falls to keeping the concept of combat and the preparations for combat actions secret. As is known, the majority of offensive operations of the Soviet

forces began from positions in close contact with the enemy, hence the achievement of surprise entailed considerable difficulties. Commanders and staff personnel had to display great skill to conceal preparations for the coming offensive from the enemy. For this purpose organisation of the departure areas with engineer works was as a rule carried out by night, on a wide frontage and with the observance of all demands of camouflage. Units advanced to the lines of departure during darkness by small subunits along secret approaches. The commandant's service closely watched the observance of blackout and sound camouflage by the forces. Guard duty was also strengthened. Before the beginning of the offensive the rate of fire remained as previously. Adjustment fire was carried out only by single guns according to the elaborated schedule. HQ personnel exercised strict control over the secrecy of preparation for the offensive. On the sectors visible from the ground observation posts, no movement was allowed during daytime.

The troops took up assault positions in different ways. Thus during the preparation for the Vistula-Oder operation, formations of the 26th Guards Infantry Corps (Commander Major-General Firsov) had been assuming the assault position for 15 days running. They built up their strength on the Magnuszew bridgehead slowly and secretly. The artillery batteries, occupying fire positions near the forward line of defences, were horse-drawn. Heavy guns were delivered by tractors to a distance not more than 5-6 km from the front line.

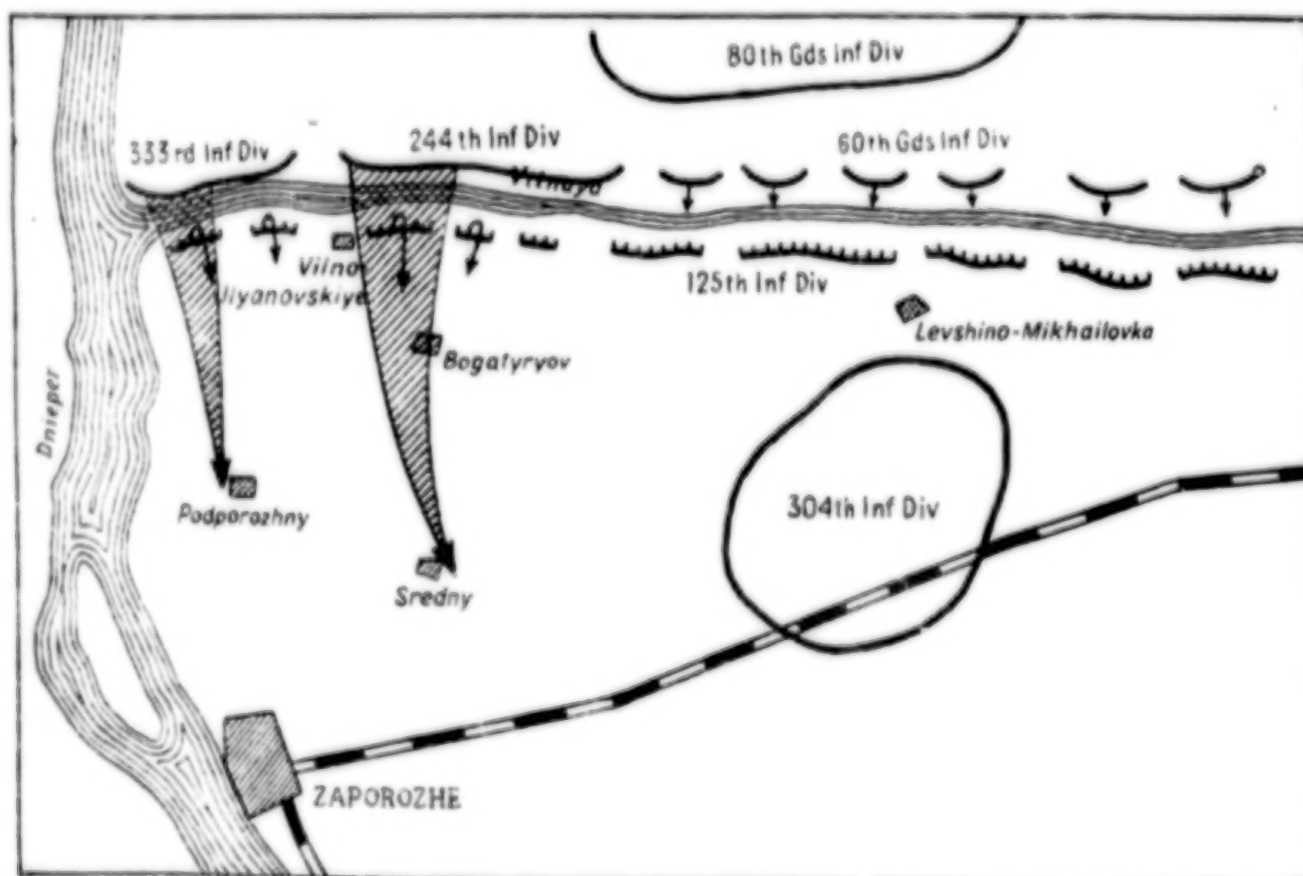
Formations of the 35th Infantry Corps (under Major-General V. Zholudev), when preparing for the Bobruisk operation in June 1944, took up their assault position in a different way. The assault area of the corps on the bridgehead along the river Drut was not at all organised with

engineer works. Infantry units moved to the bridgehead secretly the night before the offensive. Combat engineers launched nine assault and two pontoon bridges, over which five infantry regiments with artillery were crossed to the right bank. The infantry dug in secretly 200 m from the enemy FEBA. Tanks and self-propelled guns were ferried to the bridgehead during the artillery bombardment.

Methods of combat actions unexpected for the enemy are of paramount importance. A particularly great role in this case was played by the advanced detachments widely used by the Soviet Command in offensive operations. Thus, during the counteroffensive at Stalingrad, Major-General A. Rodin, Commander of the 26th Tank Corps, decided by a powerful night blow to capture the only bridge across the Don left intact in the area of Berezovsky farm (north of Kalach). The crossing, heavily guarded by the Hitlerites, was 30 km from the corps units. An advance detachment consisting of two infantry companies reinforced with five tanks and several guns was formed to capture it. Lieutenant-Colonel G. Filippov, commander of the advanced detachment, was assigned the mission: to move along the road to Kalach, to approach the bridge and to capture it.

After assessing the situation, Lieutenant-Colonel Filippov concluded that the assigned mission would be possible to fulfill only by a surprise and daring blow. Having questioned local inhabitants, the detachment commander defined exactly the approach routes to the bridge and on the night of November 21, 1942, started to carry out the assigned mission. At 0300 hours the advanced detachment without a single shot, with headlights switched on passed at high speed through the enemy positions. The Hitlerites took them for their training unit and let them approach the crossing without hindrance. At 0600 hrs the advanced detachment's reconnaissance crossed the bridge to the opposite bank of the Don and gave a signal with a flare. By a rapid attack from both sides the advanced detachment destroyed the enemy guard and captured the bridge. Lieutenant-Colonel Filippov quickly organized perimeter defences while combat engineers demined the bridge prepared for blowing up by the nazis. Coming to his senses, the enemy tried to retake the crossing. Attacks followed one after the other. Having lost up to 700 men, the enemy achieved no success. The advanced detachment held the bridge until the arrival of the corps main forces.

Sketch No. 1



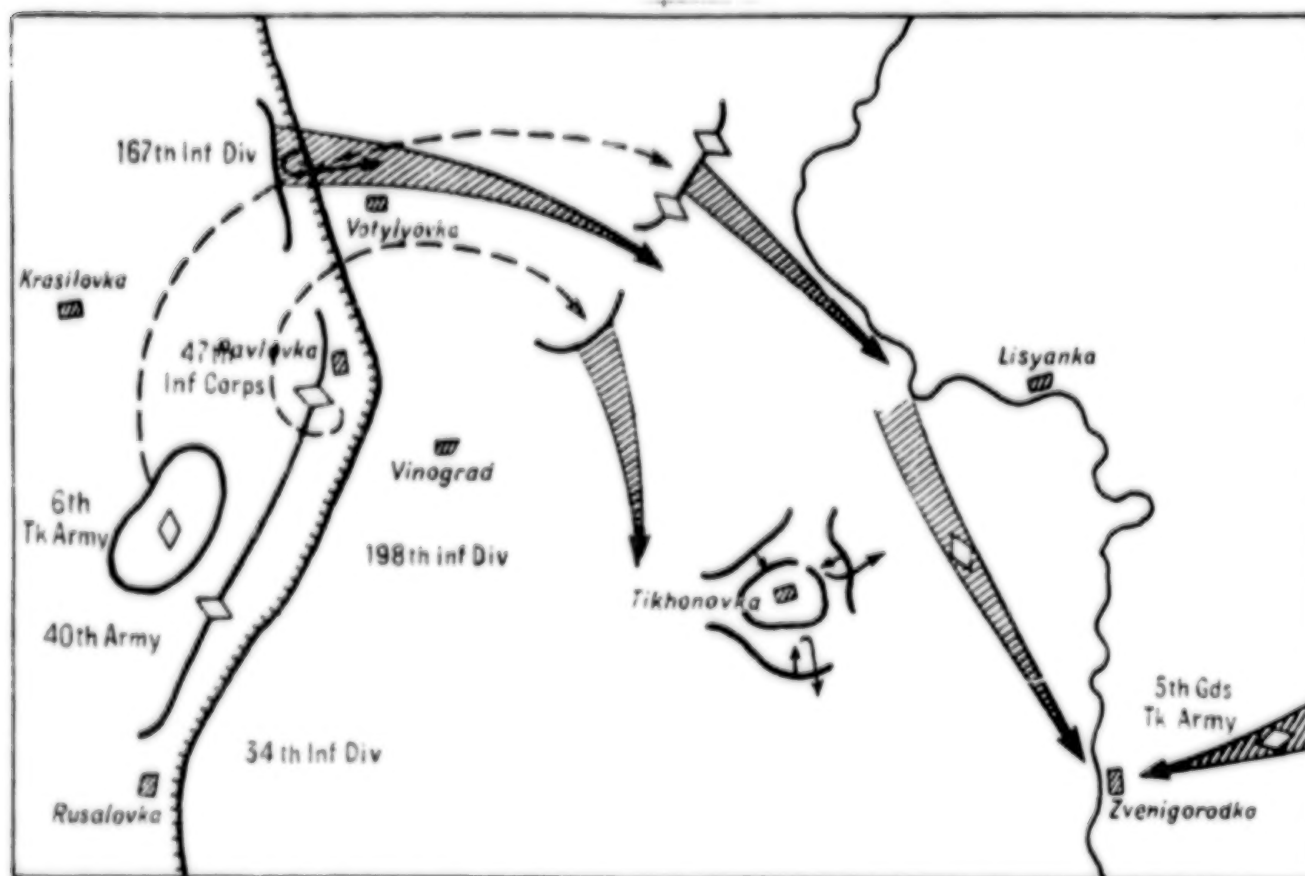
The capture of the crossing over the Don had important significance for the successful completion of the operation for encircling the Stalingrad enemy grouping. For courage and skilled actions Lieutenant-Colonel G. Filippov was awarded the high title of Hero of the Soviet Union.

In achieving surprise the correct choice of the direction of the main blow and the time of its delivery and skilful use of the terrain play an important role. Very instructive in this respect are the actions of the commander of the 244th Infantry Division in the Zaporozhe operation (October 1943).

By the end of October 11, the 244th Infantry Division reached the river Vilnaya which had convenient approaches and fords in the Levshino-Mikhailovka area. The enemy, expecting the main blow in this direction, concentrated his main forces there (see Sketch No. 1). From Levshino-Mikhailovka to the mouth of the river the bottom was swampy and covered with silt and the valley bogged up. On this sector the Hitlerites did not expect our advance and defended it with small forces. Taking this into consideration Major-General G. Afanasyev decided to force the river by night in the Vilno-Ulyanovskiye area and to deliver

the main blow at Bogatyr'yov. Meanwhile the left neighbour simulated preparations for an offensive in the Levshino-Mikhailovka area. This misled the Nazis. Making use of the favourable conditions the 244th Division suddenly crossed the river Vilnaya by 2300 hrs on October 11. Having quickly negotiated the enemy defences on the southern bank it began to press home the attack on the flank and rear of the main enemy grouping defending the northern end of the Zaporozhe bridgehead. The appearance of the Soviet forces here was a complete surprise for the Nazi Command. They were unable to organise any serious resistance to the 244th Infantry Division. The division's success was exploited by the main forces. Their energetic actions exerted a decisive influence on the subsequent course of the entire Zaporozhe operation.

A similar example took place also in the course of the Korsun-Shevchenkivskyi operation in the winter of 1944 (see Sketch No. 2). The 167th Infantry Division was holding defences on a secondary line of advance securing the left flank of the 47th Infantry Corps. The main forces of the corps, advancing in the direction: Vinograd-Zvenigorodka, fought heavy engagements with the enemy on the line:



Sketch No. 2

Pavlovka-Ruselovka. The reconnaissance of the 167th Division, having taken prisoner in the area of Votilyovka, established that the 198th enemy infantry Division, holding the defences there, had left the positions it occupied. Covering itself with a reconnaissance battalion it had gone to the south in the zone of advance of the main forces of the 47th Infantry Corps. Division Commander Major-General I. Melnikov immediately availed himself of this favourable moment and delivered a surprise blow at the weak spot in the enemy defences. The division moved rapidly southward. The Commander of the 1st Ukrainian Front immediately exploited this success. By his order the main forces of the 6th Tank Army were withdrawn from battle and quickly redispensed in the zone of advance of the 167th Division. In the morning of January 28 the advanced detachment of the northern group of the 6th Tank Army launched an offensive in the direction of Zvenigorodka. At 1300 hrs its subunits rushed into this inhabited locality where they joined up with units of the 5th Guards Tank Army, 2nd Ukrainian Front, advancing in the opposite direction. A large enemy grouping operating in the Korsun-Shevchenkivskyi area was surrounded by the Soviet forces.

Surprise is also achieved by quick and unexpected manoeuvre and by forestalling the enemy in delivering a blow. The significance of these factors grows particularly when carrying out a meeting engagement. For example, during the Byelorussian offensive operation, carried out in the summer of 1944, the 3rd Guards Tank Corps com-

manded by Major-General I. Vovchenko, pursuing the withdrawing enemy units, pressed home the attack in the Borisov direction. In order to hold up the advance of the Soviet forces the enemy began to move the 5th Tank Division forward to the line of the Bobr River. The Soviet tankmen forestalled the enemy. As a result a clash of two tank groupings took place. On June 28 a tank meeting engagement ensued in the area of Krupki and proceeded with varying success. By the end of the day one of the battalions of the 3rd Guards Tank Brigade operating on the right flank of the corps detected a gap in the enemy battle formation and boldly penetrated his positions up to 4 km. Being informed of this, the corps commander deployed the whole of the 3rd Guards Tank Brigade in the direction of the developing success and then committed to battle there the second echelon — the 19th Guards Tank Brigade. This rapid and skilled manoeuvre created favourable conditions for a decisive blow at the flank and rear of the enemy grouping. The enemy tank division was defeated.

In contemporary conditions the importance of a surprise blow has grown immeasurably. This is a result of the further development of the means of armed struggle, the high mobility and manoeuvrability of forces. At the same time it is necessary to take into account that the perfection of the technical means of reconnaissance makes the achievement of surprise more difficult. Such a situation makes higher demands on the level of combat training of the commanders, staff personnel and units and requires of them greater initiative and courage.

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MILITARY SCIENCE, THEORY, STRATEGY

BATTLE OF KULIKOVO REVIEWED

Moscow SOVIET MILITARY REVIEW in English No 9, Sep 80 pp 38-41

[Article by Col V. Kozlov, Cand. Sc. (History): "The Victory on Kulikovo Field"]

[Text] Six hundred years ago, on September 8, 1380, the battle of Kulikovo between the Russian and the Russian and the Mongol-Tartar armies took place on the Don River. It was one of the largest battles of the Middle Ages and a turning point in the Russian people's struggle against foreign domination and in the formation and strengthening of a centralised Russian state.



In the 13th century the Russian land, torn and weakened by continuous internecine wars among the princes, was invaded by foreign oppressors. The invaders defeated the disunited military forces of the Russian principalities. But the selfless defence undertaken by many cities and fortresses bled the enemy and halted his advance to the West. Due to the heroic struggle of the Russian and other peoples of Eastern Europe, Western Europe was saved from the invaders and was given the possibility to develop its economy and culture normally.

As a result of the foreign conquests a new feudal state — the Golden Horde was formed on a vast territory of Asia and Eastern Europe. The invasion of Russia and the countries of Eastern Europe and Asia slowed down the development of their productive forces and their economic and cultural growth for a long time. Russian lands suffered the most. But the people of Russia tenaciously summoned their forces to break their fetters. A big army, which only a strong state could create, was needed to rout the Golden Horde.

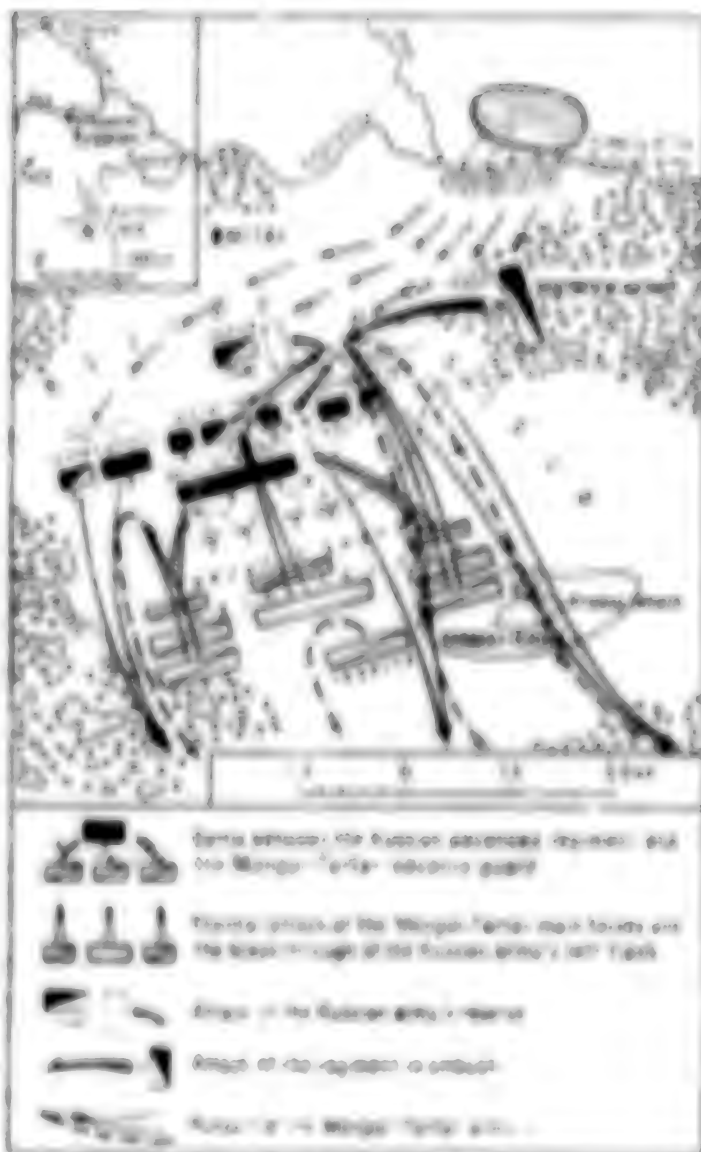
The long process of the forming and developing a Russian centralised state began in the 14th century. According to F. Engels, it went hand in hand with the liberation from the Tartar yoke. By that time the union

of scattered feudal principalities and the rallying of the Russian lands around the Moscow principality had begun.

Its consolidation caused great concern to Mamai-khan, the ruler of the Golden Horde. In 1378, in a drive to fully restore his rule, he led a large army against Russia. However, it could not break through to Moscow. On August 11, 1378, an array of Russian braves, led by the Grand Prince of Moscow, Dmitry Ivanovich (1350-1389) routed the enemy forces on the banks of the Vozha river. This was the first considerable victory over the invaders, vividly demonstrating the growth of the Russian's strength and military skill.

The defeat infuriated Mamai-khan. He began urgent and energetic preparations for a new offensive. In the summer of 1380 he fitted out an army of about 100 to 150 thousand men and moved it against Russia. At the same time he concluded an agreement with the Lithuanian Prince Yagailo, whose domain, at that time, wedged deeply into the Russian lands in the Oka river basin. He also managed to win over to his side Prince Oleg of Ryazan.

Hearing of Mamai-khan's invasion plans, Dmitry Ivanovich took measures to strengthen his army. Thousands of armed warriors, responding to his call, one after the other began to converge on Moscow from different parts of Russia. Besides, Ukrainian and Byelorussian troops



were making their way to Krasnodar and Cherkassk. From 100 to 150 thousand men gathered against the forces of Dmitry Ivanovich. This was the aggression led to by a strong and organized army with a high morale and led by experienced military leaders instead of the former divided Russian forces.

Dmitry Ivanovich chose an aggressive offensive strategy for the forthcoming battle. He decided to meet and crush Mukhar's forces before their incursion into the Russian principalities and not to let Yegorov's and Qing's armies join with them. The Grand Prince of Moscow's plan was to forestall the enemies and attack their rearward positions.

On August 28, 1880, Dmitry Ivanovich led his army to the upper reaches of the Dan. In front of the Russian army were experienced special mounted guards, led by experienced commanders. They were ordered to take cover over the enemy and bring in identification prisoners. For instance, the mounted troops of cherkassk forces had managed to capture an identification prisoner from the ranks of Mukhar's forces, who disclosed the enemy's plan and the strength of his army. According to the information the Tatar forces were on the other side of the Dan and were about to move to join their allies.

On September 6, the Russian army reached the Dan near the mouth of the Napryadva River. Dmitry Ivanovich summoned a council of war to decide whether to attack the enemy in the right bank of the Dan and the Napryadva and having three main barriers with strong banks on the river in, using the enemy as a shield, to take up defensive positions. The arguments of the military leaders of the army differed. Thus (Dmitry Ivanovich): "We shall immediately proceed across the Dan and then either take the city and destroy everything that exists of it, or else we will, having taken this decision to ourselves, the position of the city in the valley of the Dan."

The camp of the invading army was a little land, surrounded with water and the surrounding banks of the Dan extending to the mouth of the Dan was a long and narrow strip of land. The Russian army had the land in front of them. The whole place was called "Polovtskaya land". To the left of the place chosen for the battle there was a large gorge — the Saltykovskaya Gorge. To the right of the Dan and the Napryadva, which were rather difficult to cross, such a narrow strip of land was not to the attack of Yegorov's and Qing's armies and also of the Tatar forces from the east, which appeared to the Dan and the Napryadva. Thus, the army was deprived of the opportunity to use their own strong points in attacking the enemy's flanks with its left and was forced to attack from the front.

On the night of September 7, according to the darkness and the wind, the Russians crossed the Dan and, under cover of the guard's mounted regiment, deployed on both banks of the Dan. Mukhar's army was also approaching the site of the battle.

The Russians laid the batteries between the Saltykovskaya and Polovtskaya Rivers, comprising a battery of 24 heavy field artillery. Proceeding from the enemy's tactics and the features of the terrain, Dmitry Ivanovich made use of a very powerful advantage in the front, at a considerable distance from the main forces, he placed the powerful cavalry regiment with the assignment to open the battle. Behind it he deployed the advanced regiment of warriors on foot. It was to take upon itself the first thrust of the enemy's cavalry and then, its combat formation — to conduct the object of the present campaign.

The third line consisted of the main forces. In the center was the big regiment made up of infantry and cavalry under Dmitry Ivanovich Shchekel, the Moscow courtier Yurii Vasilievich and the cavalry and infantry regiments of the right and left arms attached to it. An infantry detachment — special reserve was placed around the left flank to support the big regiment. And a general reserve — a small cavalry regiment, under the command of the experienced leaders Prince Vladimir Andreyevich of Suzdal and Boyar Dmitry Dmitriyevich of Novgorod, was in position beyond the left flank of the main forces. For three days it was considered to be a reserve of unprecedented strength.

The tactical disposition sketched reliably ensured its victory of the Russian forces against frontal and flanking attacks of the enemy. It also allowed them, using the reserve and general reserves, to intensify their attacks from deep in the rear and maintain them completely free among the different elements of the enemy formation during the battle.

Mamai-khan's army turned up leaving the Russians in the upper reaches of the Nipysy Dnieper and Smolensk rivers. It took them an advanced detachment of light cavalry, behind it went the heavy infantry under Dmitry Shchekel and on the right and left on heavy cavalry. It mounted troops extended over two lines and had two advanced detachments. At the head of the Krasny Khelm, where the Khan's headquarters was situated, there was a fairly strong reserve of mounted troops. Mamai-khan planned to surround the Russian army with the cavalry and then by frontal, flanking and rear attacks to rout it.



At Kulikovo battle started at about midday on September 8. According to the tradition of the times there were a duel of the strongest warriors from the opposing sides. The winner foretold, as it were, the result of the army. Mitya Chelubey, who was "great and extremely fierce," represented the enemy side and Alexander Peresvet, a monk from the Bryansk fortress and of giant stature, the Russian side. Raring their horses at top speed and spearing each other they fell dead.

A fierce battle began, the like of which Russia had never seen before. Grand Prince Dmitry, clad in the suit of armor of an ordinary warrior, fought in the center of the advanced Russian regiment, in the front array. A chronicler describes the battle in these words: "Spears broke like straws, arrows fell like rain, dust shot out the rays of the sun, swords glittered and men fell like grass under the scythe and blood poured like water and streamed like floods."

The guards and advanced regiments took upon themselves the main blow of the enemy. Displaying great courage and unflinching staunchness the warriors held up the Tartars for some time. Both regiments fell, but fulfilled their duty with honor — they did not let the enemy's advance guard break the ranks of the big regiment.

As Dmitry assumed, the main enemy forces were directed at the left flank of the Russians. The enemy attacked so fiercely that the regiment of the left arm began retreating, thus laying upon the big regiment's flank. The infantry detachment — special Russian reserve — covered the exposed flank for a while. But soon the enemy overran the left flank and rushed his enormous forces into the Russian rear, cutting them off from the bridges across the Don and threatening to throw them into the Niprydva. The enemy army, not suspecting the existence of a strong Russian reserve — the mounted regiment in ambush — offered its flank and rear to the blow of the Russian regiment.

It was at this critical moment of the battle that the fiercest powerful attack of the regiment in ambush was launched upon the enemy. The course of the battle changed radically. The enemy began a panic flight to the Krasny Khelm. Mamai-khan brought out his reserve but could not halt the Russian offensive. He too fled in haste.

For more than 40 versts, up to the Krasnaya Mch river, the Russians pursued the enemy, destroying his remaining troops. The Tartars were completely routed, but the victory was won at a dear price. The battle on Kulikovo field lasted for just several hours, but the losses on both sides were enormous (almost 300 thousand men killed or wounded). After the battle Grand Prince Dmitry was found with difficulty. He was lying unconscious under a fallen tree with his suit of armor dented and crumpled from the enemy's blows.

News of the Russians' victory over the Mongol-Tartar forces also reached Princes Vasilko and Oleg, who were leading their troops to the scene of battle. Their armies turned back in a hurry.

The rejoicing people jubilantly greeted the victors all the way from the Don to Moscow. Grand Prince of Moscow Dmitry Ivanovich was granted the honorary title of "Donskoy" (i. e. of the Don) and the Prince of Serpukhov Vladimir Andreyevich — "Khrobry" (the Brave).

The Kulikovo battle had an enormous historical significance. Russia not only defended itself on Kulikovo field, but once and for all barred the invader's way to Europe. Although the battle did not lead to the complete liquidation of the foreign yoke — this happened only a hundred years later — a crushing blow was dealt at the Golden Horde on Kulikovo field. It was so enfeebled and disgraced that from that time on the Russian princes reckoned little with its power.

From that moment began the national and state exaltation of Russia. Gradually Moscow turned into the economic and political centre of the Russian state.



The Kulikovo battle was the crowning moment of the Russian military art of the time and demonstrated its superiority over the enemy army's military art. Dmitry Donskoy's talent as a military leader was brilliantly manifested in this battle. Relying on the high morale of the Russian warriors who rose as one man against the invaders in the war of independence, he acted energetically, quickly and resolutely.

The memory of the glorious victory of the valiant Russian warriors under the leadership of Dmitry Donskoy, inspired the Soviet people during the Great Patriotic War (1941-45) in the sacred struggle against the Nazi invaders.

The Kulikovo battle forever remains a remarkable example of the selflessness and patriotism of the Russian people.

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MILITARY SCIENCE, THEORY, STRATEGY

IMPORTANCE OF AIR SUPREMACY DISCUSSED

Moscow SOVIET MILITARY REVIEW in English No 9, Sep 80 pp 42-44

[Article by HBU and Merited Military Pilot of the USSR Lt Gen Avn P. Bazanov:
"Air Supremacy"]

[Text]

Air supremacy implies a decisive superiority of one of the warring sides in the air over the theatre of operations or in the main direction.

The air force plays the main role in achieving and maintaining air supremacy, though other fighting services also contribute to this aim. In scope air supremacy may be strategic, operational, or tactical.

Gaining air superiority was one of the main prerequisites that ensured first a radical change and then victory in the Great Patriotic War (1941-45). The success of military operations conducted by the Soviet Army depended largely on the outcome of this struggle. The Soviet Air Force fought the enemy intensively throughout the whole war period. Destroying enemy aircraft in the air and on airfields, the Soviet airmen strove to neutralise the enemy aviation and thus make it possible for the land and naval forces and also the home front to cope with their missions without enemy hindrance. By massive attacks on the enemy troops on the battlefield, on his reserves and other objectives the Soviet Air Force disrupted the regularity of enemy operations and frustrated his plans.

On the very first day of the war the Nazi aviation launched surprise attacks on the Soviet airfields accommodating the aircraft (65 per cent) of the western frontier military districts. The Soviet Air Force sustained heavy losses. The enemy avia-

tion gained air supremacy in some directions of the Soviet-German front. This involved the Soviet land forces and the Air Force in a difficult situation and was one of the reasons of the Soviet Army's temporary failures at the first stage of the Great Patriotic War.

In difficult conditions the Communist Party and the Soviet Government took measures to strengthen the Air Force, putting the aircraft industry on new lines and training the Air Force personnel according to war-time requirements. Steps were also taken to improve the principles of both air fighting on various scales and aerial tactics with due consideration of the aircraft's new capabilities, the specifics of enemy actions and the combat experience being gained by the Soviet pilots.

The high fighting qualities of the Soviet Air Force was manifested most vividly in the battles of Moscow, Stalingrad, Kursk, in the air battles in the Kuban, Right-Bank Ukraine and Byelorussia and in the Jassy-Kishinev, Vistula-Oder and Berlin operations. Whereas in 1941 each operation involved 200-500 aircraft, in 1943-45 their number reached several thousand and in 1945 up to 7,500.

Actively supporting the ground forces in the Battle of Stalingrad the Soviet aviation jointly with the AA artillery ensured the air blockade of a 330,000 strong enemy grouping. In carrying out

this mission the Soviet Air Force destroyed almost entirely, either in the air or on the ground, the Nazi military-transport aviation operating in this direction. The isolation of the many thousand strong encircled enemy grouping deprived it of all outer support whatsoever and this greatly contributed to the Nazis' final defeat at Stalingrad.

In February 1943 Commander of the 62nd Army Lieutenant-General Chuikov wrote in a letter to the airmen that celebrating their glorious victory the officers and men of infantry, tank and artillery troops would always remember that great credit for the victory was due to the pilots, air navigators, radio operator-gunners and junior aviation specialists.

The air fighting in the Kuban (spring 1943) also ended in the victory of the Soviet Air Force, which was represented there by the North Caucasian Front aviation reinforced by three air corps of the O HQ reserve and part of the Black Sea Fleet air arm. The purpose of the air fighting in the Kuban was to gain air supremacy on the Southern wing of the Soviet-German front and to create the most favourable conditions for the land forces' offensive operations.

The first big-scale encounters in the air took place during the fierce fighting on the bridgehead in the Myskhako area (the Small Land near Novorossiisk). Here on April 17-24 the Nazis tried to destroy a landing party of the 18th Army. To create overwhelming air superiority in the Kuban area the Nazi Command concentrated there the main force of the 4th Air Fleet, which numbered nearly 1,500 planes, i. e. more than 50 per cent of the Nazi aviation operating at that time on the Soviet-German front. This armada was opposed by more than 900 Soviet aircraft.

April 20 marked the beginning of the complete failure of the Nazis' plan to destroy the Soviet grouping on the bridgehead near Myskhako. German prisoners informed the defenders of the bridgehead that about noon on that day a new powerful offensive was to be launched on the landing party positions. They also said that the offensive was to be preceded by heavy air bombing and artillery bombardment and the offensive itself was to be supported by bombers and fighter planes.

The Soviet Command decided to respond with a powerful counteraction. During the first sortie over 100 Soviet bombers delivered a surprise attack at the battle formations of the Nazis preparing for the offensive. Some time later another 100 Soviet bombers launched an attack on the positions and the immediate rear of the Nazi forces. In an effort to restore the situation the enemy greatly increased the activity of his aviation. Air battles over a relatively small area involved 50 and more aircraft.

Recollecting these events L. I. Brezhnev writes in his book "Malaya Zemlya" (Small Land):

"I find it very difficult to describe just what was going on in the sky. Everywhere one looked there were Soviet and German planes, sometimes singly, sometimes en masse, circling in deadly combat. The black smoky trails of downed planes intersected as they plunged to the ground. In only three days of fighting our pilots brought down 117 enemy planes over Malaya Zemlya."

Subsequent air battles in the Kuban took place in the areas of Krymskaya, Kievskaya and Moldavanskaya villages. The air encounters not infrequently lasted several hours with both sides building up their forces. There were cases when formation air fighting took place 50 times a day, each of the warring sides being represented by 30-50 aircraft.

Out of 1,100 aircraft lost by the enemy in the Kuban area 800 were shot down in air battles. As a result the Soviet Air Force wrested the initiative from the enemy and gained air supremacy on the southern wing of the Soviet-German front.

The air war in the Kuban served as a school for the Soviet pilots to gain high combat skill and for air force commanders at various levels to further improve their proficiency in controlling large air formations. In these battles high fighting efficiency was achieved by such measures as concentrating aircraft in the main directions, using a great number of control stations, building up the forces in due time and practising vertical manoeuvres and new battle formations.

The Soviet pilots took an imaginative approach to solving combat missions. They improved their air fighting tactics and searched for new methods of destroying the enemy. They also gained a wealth of experience in formation air fighting. In the battles in the Kuban skies they perfectly mastered the tactics of dog fighting in pairs.

The air fighting near Kursk was an important stage in the Soviet Air Force's achievement of air superiority over the enemy. The enemy concentrated in this direction nearly 2,050 aircraft. The Nazi Command pinned great hopes on its aviation, assigning it the mission to clear the way for the shock tank forces. Discovering in time the enemy preparations for an offensive on the Kursk direction the Soviet Command, considering the strong enemy air force built up there, took timely measures to strengthen its air force grouping operating there.

During the preparations for the forthcoming battle the Soviet aviation continued its combat activity. It delivered strikes at enemy reserves, fought to gain air supremacy, covered friendly forces and carried out air reconnaissance.

In order to reduce to the minimum the fighting efficiency of the enemy air group in the central sector of the front the Soviet Command conducted two air operations to destroy enemy aircraft on airfields.

When the Battle of Kursk began fighting for air supremacy took the shape of air battles which sometimes involved up to several hundred aircraft fighting in some directions.

The main burden of this struggle was borne by fighter planes. During the first day of the offensive the enemy used large groups of bombers escorted by a large number of fighters. That day the Soviet fighter planes fought fierce air battles.

Later the air situation began to change quickly in favour of the Soviet Air Force, and this had an immediate effect on the course of operations. Massed strikes dealt by Soviet bombers and attack planes on the enemy tank forces and reliable air support of the ground troops substantially helped the Soviet forces to launch a counteroffensive and to rout the enemy groupings in the Orel, Belgorod and Kharkov areas.

During the Battle of Kursk the Soviet airmen destroyed more than 3,700 enemy aircraft in air battles and on airfields, thus gaining strategic air supremacy and maintaining it until the complete defeat of the enemy.

The Soviet aviation was exceptionally active during the Berlin operation. Keeping the initiative entirely it reliably covered the friendly forces from air strikes. The Soviet airmen launched powerful attacks on the enemy troops. In the grandiose Battle of Berlin the Soviet Air Force, operating jointly with the land forces, made a weighty contribution to the rout of Nazi Germany.

After the war the Soviet Air Force continued its progress. Relying on the latest achievements in science and technology it became a powerful service of the Armed Forces. Today its core is formed by modern air combat as provided with highly destructive weapons and up-to-date equipment indispensable for ensuring flights, interceptions and air strikes with perfect precision in time and place both by day and by night and in practically any weather conditions. The theory and practice of ensuring air supremacy was further developed. Now, when deep qualitative changes have taken place in aviation equipment and the armament of planes and helicopters, in the struggle for air supremacy such air force features as high combat activity, offensive spirit and initiative in action continue to be of great importance.

The experience of the Great Patriotic War convincingly proved that air supremacy is indispensable for success both in each military operation and in a war as a whole.

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MILITARY SCIENCE, THEORY, STRATEGY

OPERATIONS IN FAR EAST IN 1918-1922

Moscow SOVIET MILITARY REVIEW in English No 9, Sep 80 pp 44-47

[Article published under the heading "Military History" by Col S. Gusarevich, Cand. Sc. (History): "Struggle for the Soviet Far East"]

[Text]

The article is devoted to the struggle of the working people in the Soviet Far East against the internal counter-revolutionaries and foreign interventionists in 1918-22.

The Soviet Far East is famous for its interesting history and distinguished revolutionary traditions. Thousands upon thousands of well-known and unknown heroes — Russians, Ukrainians, Byelorussians, Tatars, Yakuts, Evenks, Koryaks, Aleuts, Nivkhs, Nansians, Udeghes and people of other nationalities — have put their effort, knowledge and experience into developing its expanses. Dozens of expeditions undertaken by pioneers, navigators and explorers worked to explore Far Eastern lands and seas, studied and plotted them on the map. They blazed the trade routes, founded towns and cities, built railways, organised commercial fishing and hunting, developed the industry and farming which later formed a part of Russia's national economy.

Together with the other working people of Russia the workers and peasants of the region fought to overthrow tsarist autocracy and to establish Soviet power.

During the Civil War and period of foreign military intervention Soviet Russia had to fight long and hard for its territories in the Far East.

As early as November 24, 1917, the US cruiser "Brooklyn" appeared in Vladivostok harbour as a sinister herald of the future occupation of the region. On January 12, 1918, the Japanese cruiser "Iwami" cast anchor in Golden Horn bay. Soon these foreign warships were joined by other ships of the Japanese, United States and British navies.

Prompted by US, Japanese and other consuls in Harbin, the Chinese warlords closed the Soviet-Chinese frontier

to prevent the export of grain purchased in North East China for the people of the Primorye Territory. On March 16, 1918, the Russian counter-revolutionaries held a meeting in Peking with Japanese and Chinese generals at which a plan for the occupation of the Soviet Far East and Siberia was adopted. Later it was entirely approved by US ruling circles.

On April 5, 1918, the Japanese landed an interventionist force in Vladivostok. Protesting against this act of aggression the Soviet Government stated:

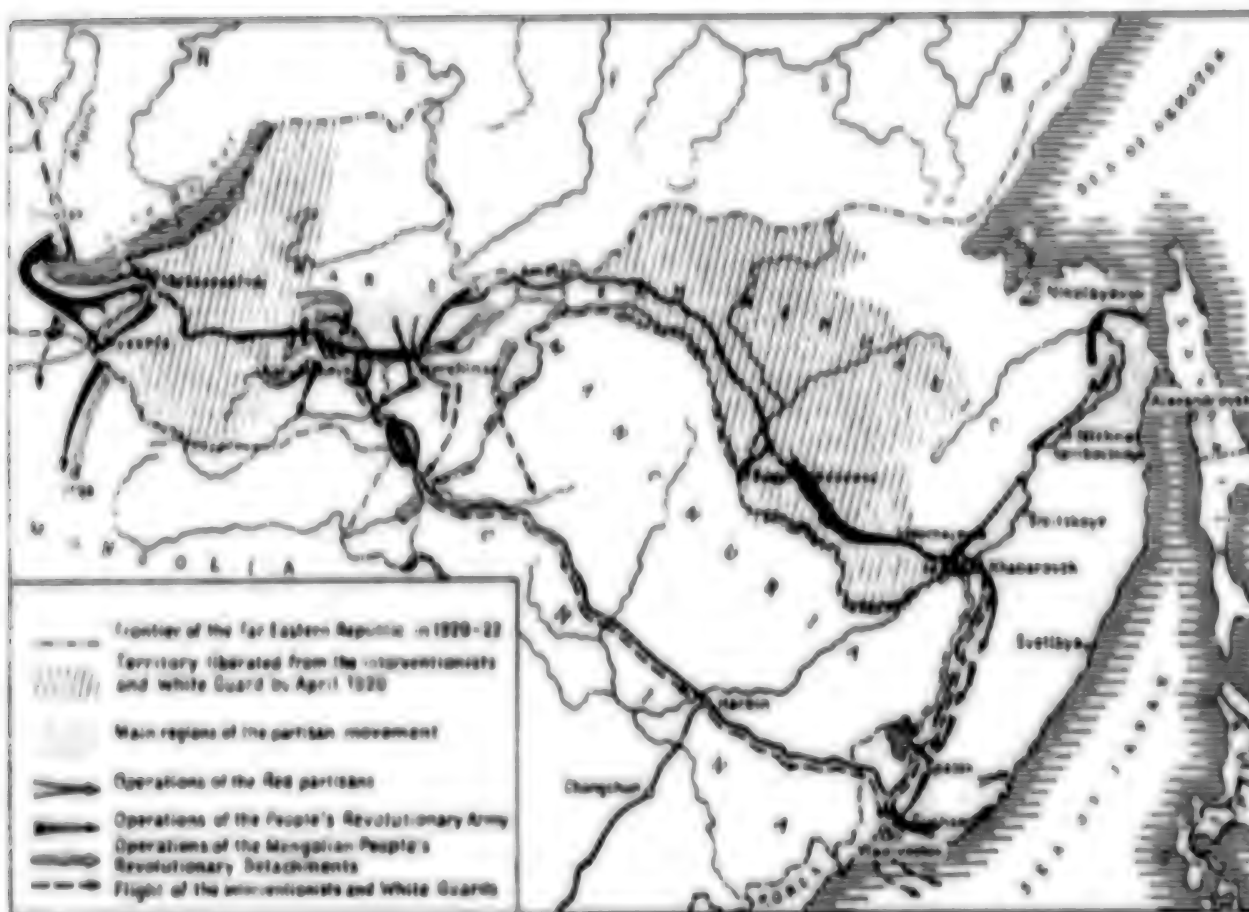
"The attack prepared over a considerable period of time has been launched from the East. The Japanese imperialists are eager to strangle the Soviet revolution, to cut Russia off from the Pacific Ocean, to seize rich expanses of Siberia and to enslave the Siberian workers and peasants."

In the face of the looming threat V. I. Lenin, head of the Soviet Government, sent a telegram to the Vladivostok Soviet on April 7, 1918, saying:

"We consider the situation very serious and issue the most categorical warning to the comrades. Do not harbour any illusions: the Japanese will certainly attack. That is inevitable. Probably all the Allies without exception will help them. Hence it is necessary to begin preparations without the least delay and to prepare seriously, exerting every effort."

Soon American, British, French and other interventionists landed in Vladivostok too.

Under the leadership of the Communists the working people of the Far East took up arms to defend the achievements of the October Revolution. The Soviet troops fought heroically. However, under pressure of the superior enemy forces, they were forced to withdraw. A bloody



dictatorship was established over the territory by Admiral A. Kolchak. Responding to the call of the Communists a partisan movement was organized. It was truly a movement of the whole people which spread over the vast territory from Lake Baikal to the Pacific Ocean. The partisans were active in the rear of the White Guard and interventionist forces. For instance, in June 1919 the partisans of the Primorye Territory under Sergei Lazo* destroyed the machinery of the coal pits in Suchan, thereby depriving the interventionists of fuel.

In autumn 1919 the Red Army inflicted a crushing defeat on Admiral Kolchak's White Guard army, launched a counteroffensive and drove its remnants eastward. In March 1920 Soviet troops entered Irkutsk. By then the workers and peasants who had arisen against the Whites together with the partisan detachments liberated from the White Guard troops practically the entire territory of the Trans-Baikal region and the Far East. Driven out of many areas, the interventionists were forced to declare their neutrality.

However, the situation was difficult.

* Sergei Lazo (1894-1923), hero of the Civil War, eminent political and military leader. He was murdered by the Japanese interventionists.

In an effort to avoid a direct clash with Japan and the other imperialist powers in the Far East the Central Committee of the Communist Party and the Soviet Government found it expedient to set up a Far Eastern Republic as a separate state. A People's Revolutionary Army was formed for its defence.

Late in 1920, after the Red Army had scored numerous victories over the interventionists and White Guards, the Civil War in Soviet Russia ended. This helped to consolidate the position of the Far Eastern Republic. U.S., British, French and other interventionist forces were compelled to withdraw from it. An agreement on the cessation of hostilities was reached with the Japanese interventionists.

Meanwhile the counter-revolutionaries became more active. In the middle of April 1921 a meeting of representatives of various White Guard gangs was held in Peking, an active anti-Soviet centre at the time. Among them were representatives of White Guard gangs that had found refuge in China and Mongolia, whose territory was occupied by Chinese troops. The meeting discussed and adopted a plan for the destruction of the Far Eastern Republic. Soon the White Guards managed to seize power in Vladivostok.

The Soviet Government under V. I. Lenin took urgent measures to assist the Far Eastern Republic. A large group of experienced military leaders and political workers was sent there with arms and funds. Vasily Blucher^{*} was appointed Commander-in-Chief of the People's Revolutionary Army and War Minister of the Far Eastern Republic.

In summer 1921 Soviet forces cooperating with detachments of the Mongolian People's Revolutionary Army routed the White Guard gangs of General R. Ungern. Operating from Mongolian territory, these gangs had planned to seize Verkhneudinsk (now Ulan-Ude) and to cut the Far Eastern Republic off from Soviet Russia.

Taking advantage of their considerable numerical superiority the White Guards took Khabarovsk. They intended to surround and destroy the units of the People's Revolutionary Army. A big enemy cavalry group was assigned the mission of crossing the River Amur, then icebound, at Volochayevka (48 kilometres from Khabarovsk) to destroy the railway in the rear of the revolutionary forces. At the settlement of Kazavichyev the White Guard group ran into a special detachment which put up fierce resistance. Two hundred Communists and Young Communist League members who had been sent by the Amur and Primorye Regional Party Committees fought an unequal battle to stop the advance of the enemy. Practically all the heroes lost their lives, but they fulfilled their duty to the end. They managed to foil the intention of the enemy.

The forces of the newly-formed Soviet Eastern Front stopped the enemy at the railway station of In.

The Communists displayed great energy in mustering forces for the rout of the enemy. The revolutionary forces received reinforcements and managed to put up powerful resistance to the enemy. The partisans also gave no peace to the White Guards. Their raid on Khabarovsk was particularly audacious. A detachment numbering about one thousand fighters under D. Boriko-Pavlov executed a 75-kilometre march with horse-drawn carts to break into the city on January 12, 1922. The enemy managed to hold Khabarovsk only because he was able to bring two infantry regiments from the front in time.

The White Guard forces were compelled to go over to the defensive. Near the railway station of Volochayevka they organised an elaborate fortified area which blocked the advance of the revolutionary forces to the Primorye Territory and the Pacific coast. The fortifications on the slopes of Mount Iyun-Koran, protected by many rows of barbed-wire fences, trenches with ice-covered ramparts and numerous weapon emplacements, inspired the White Guards with confidence. They were sure they would hold their ground till the spring. After that they intended to resume the offensive with the support of the interventionists.

On January 28 Vasily Blucher arrived at In with his field headquarters. He assumed command to prepare and carry out an assault on Volochayevka.

The fighting went on for three days and two nights. In a "Review of Military Operations" the Headquarters of the People's Revolutionary Army wrote:

"It is difficult to describe the heroism and courage displayed by the commanders and men in these difficult days. They spent several nights without sleep in the open. Poorly clad and practically starving they acted as real revolutionary fighters."

Advancing waist-deep in the snow under heavy enemy fire the men tore through the barbed-wire entanglements with the butts of their rifles or sabres. Crying out "Hurrah!" the heroes repeatedly went into the assault.

By noon on February 12, 1922, the Red Banner was already flying over Volochayevka. Pursuing the White Guards the People's Revolutionary Army entered Khabarovsk on February 14.

The victory at Volochayevka marked a turning point in the war in the Far East, in the fighting for its complete liberation from the foreign interventionists and White Guards.

However, the Japanese troops took the remnants of the counter-revolutionary army under their wing and began hostilities against the Far Eastern Republic. Simultaneously the Japanese tried to exert diplomatic pressure on it. At the conferences in Dairen and Chanchung (China) the demand of the representatives of the Russian Soviet Federal Socialist Republic and of the Far Eastern Republic on the withdrawal of Japanese troops from the latter's territory was declined. Japan on its side advanced demands which, had they been accepted, would have placed the Far Eastern Republic under its control.

In this context the People's Revolutionary Army made preparations for decisive battles. Thousands of Communists were sent to the units. They strengthened the morale of the men and their confidence in an early victory. The work of the staffs, the fighting skill of the commanders and men improved. The Central Committee of the Communist Party and Soviet Government appointed Ieronim Uborevich[†] Commander-in-Chief of the People's Revolutionary Army.

In September 1922 the interventionists, jointly with the White Guards, made another attempt to turn back the tide of the war in their favour. In the south of the Primorye Territory the White Guard forces numbered about 9,000 infantry and cavalry, four armoured trains, about 100 machine guns and 24 guns. They assumed the offensive. However, the White Guards were stopped by the People's Revolutionary Army. The attempts of the White Guards to destroy

* Vasily Blucher (1890-1956), Soviet military leader, hero of the Civil War, Marshal of the Soviet Union.

† Ieronim Uborevich (1898-1971), a Soviet military and Party figure who took part in the Great October Socialist Revolution and the Civil War.

the partisan forces ended in failure. The Command of the People's Revolutionary Army wrested the initiative from the Whites and firmly retained it.

It was necessary to pierce the powerful permanent fortifications at Spassk the interventionists had built in 1921. The assault on them was launched at dawn on October 8.

In a fierce two-day battle the commanders and men of the People's Revolutionary Army again demonstrated, as at Volochayevka, their indomitability, heroism and self-sacrifice. Despite desperate enemy resistance they took the seemingly impregnable fortifications at Spassk by noon on October 9.

After the defeat at Spassk the White Guard Command tried to stem the Red offensive near Monastyrishche. Fierce fighting went on there on October 13 and 14. The cadets of the divisional school of the 2nd Primor Infantry Division won unfading glory. In five hours they beat off continuous assaults of the enemy who counterattacked with 1,500 infantry. Though only 67 cadets survived the ordeal, they prevented the breakthrough the Whites had planned. All of them were awarded the Order of the Red Banner for their exceptional staunchness and valour in battle.

By October 20, 1922, the People's Revolutionary Army and partisan detachments approached Vladivostok. The working people of that city went on strike and organised fighting groups to defend the industrial enterprises. Faced with these developments the Japanese troops were compelled to withdraw.

On October 25 the Red troops entered Vladivostok, where they were extended a hearty welcome by enthusiastic crowds. There were still a few pockets of resistance in the peninsula of Kamchatka and in Yakutia, but these were soon eliminated too.

The Far Eastern Republic, which was an outpost of the Soviet Republic in the Far East, had fully accomplished the mission assigned to it. On November 14, 1922, the People's Assembly of the Republic decreed the establishment of Soviet power in the Far East and requested the All-Russia Central Executive Committee** to be accepted as part of the Russian Soviet Federative Socialist Republic.

The rout of the White Guard force and expulsion of the last interventionists from the Soviet Far East meant that the first imperialist invasion of the Soviet Republic had utterly failed.

** The All-Russia Central Executive Committee was the highest legislative, administrative and control body of the Russian Soviet Federative Socialist Republic until 1937.

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MINISTRY OF DEFENSE AND GENERAL STAFF

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ARMED FORCES

PARTY MEMBERSHIP: CRITERIA AND DUTIES

Moscow SOVIET MILITARY REVIEW in English No 9, Sep 80 pp 11-13

[Article by Lt Col G. Belousov: "Member of the Communist Party: His Duties and Rights"]

[Text]

The 26th Congress of the Communist Party of the Soviet Union will be convoked on February 23, 1981. In compliance with requests from our readers the magazine is publishing materials on the role played by the CPSU in the life of Soviet society, the organisational and other principles of Party development.

The Communist Party of the Soviet Union (CPSU) voluntarily unites in its ranks the advanced, more conscientious part of the working class, collective farms peasants and intelligentsia. It is the guiding and directing force of Soviet society, its political system, state bodies and public organisations. This is duly reflected in the Constitution of the USSR. Guided by the sound scientific foundation of Marxism-Leninism, the CPSU determines the general perspectives of the development of society and the course of the home and foreign policy of the USSR, directs the great constructive work of the Soviet people.

The Party regards as an inviolable law of its life the ideological and organisational unity of its ranks, which should be monolithic, all Communists exhibiting lofty conscientious discipline. The CPSU attaches great importance to the development of revolutionary theory. It considers itself an inalienable part of the international communist and working class movement. It firmly upholds the Marxist-Leninist principles of proletarian internationalism, actively strengthens the unity of the entire communist and working class movement, fraternal ties with Communists in all countries, with all fighters for freedom, independence and social progress.

Being by its nature, aims and tasks a Party of

the working class, the CPSU had always consistently defended the interests of all working people in the USSR. The profound socio-economic changes that took place in the country have rallied all classes and social groups under the banner of communism. As a result, the CPSU now expresses the fundamental interests of the whole Soviet people.

At the current stage, the stage of advanced socialism, the leading role of the Party in the USSR is acquiring increasing importance. This follows from the vast scope of the extremely difficult tasks both internal and international. The Party coordinates and directs the many-sided efforts of the Soviet people in the spheres of economics, social relations, culture, education and instruction, in the sphere of the country's defence. It determines the foreign policy of the Soviet state, which is pursued in the interests of peace, international security and social progress.

V. I. Lenin always preserved the Party's prestige and called on all to maintain it high. He said that every member of the Party was responsible for the Party and that the Party was responsible for every member. Lenin taught that the Party's combat efficiency as the leading detachment of the working class, as its revolutionary vanguard was ensured by the unity of theory and practice, by ideological and political cohesion. Organisational unity based on democratic centralism, every Party member's conscientiousness and active work and lofty sense of responsibility for carrying out its decisions play an outstanding role. V. I. Lenin maintained that to be a Party member one personally and systematically should take part in the work of one of its organisations. He resolutely condemned the opportunistic suggestion that a

person should be allowed to be a Party member, if he gave the Party material support without taking a personal part in the work of its organisations. Lenin believed that this formula, according to which a Party member did not need to be a member of one of the Party organisations and did not have to observe the strict rules of Party discipline, would promote the penetration into the Party of various temporary fellow-travellers, people who were ideologically, politically and organisationally unstable, who refused to accept discipline, and were unwilling to work in Party organisations. This approach threatened to turn the Party into an amorphous uncontrollable organisation. But the task was to make every Communist an active fighter for the Party's cause.

A Communist is a revolutionary fighter for the complete triumph of the great ideals of socialism and communism, one who is politically conscious, who realises his personal responsibility for the cause of the Party. Indifference, passivity and unprincipledness are incompatible with membership of the Communist Party of the Soviet Union.

In 1903 the Party membership was about 3,500. On the eve of the Great October Socialist Revolution in 1917 it increased to 350,000. Today the membership of the CPSU exceeds 17 million. They are welded together by unity of purpose, will and action. This unity is determined by the Programme and Rules of the CPSU. It is binding on the Party member to fulfil the requirements of both.

Every Communist enjoys equal rights and has equal duties. Party membership rules out all privileges as compared to other citizens of the USSR, i. e. non-Party people. Paragraph 1 of the Rules reads:

"Membership of the CPSU is open to any citizen of the Soviet Union who accepts the Programme and the Rules of the Party, takes an active part in communist construction, works in one of the Party organisations, carries out all Party decisions, and pays membership dues."

Applicants are admitted to Party membership only individually from among candidate members after one year in the Party as candidate member. Candidate membership is necessary to enable the applicant to become well acquainted with the Programme and Rules of the CPSU and to prepare himself for full membership. Candidate

members of the Party can participate in all the activities of their Party organisations and have a deliberative vote at Party meetings. Persons may join the Party on attaining the age of eighteen. Young people up to the age of twenty-three (inclusive) may join the Party only through the Leninist Young Communist League of the Soviet Union. Applicants for Party membership (as candidates or full members) must submit recommendations from three Party members who have a Party standing of not less than five years and who know the applicants from having worked with them for not less than one year. In the case of members of the YCL applying for membership of the Party, the recommendation of a primary YCL organisation approved by a district committee of the YCL is required. In the Armed Forces the recommendation of a primary YCL organisation must be approved by the YCL committee of a regiment (or ship) and certified by the deputy commander for political affairs. This recommendation is equivalent to a recommendation from one Party member. Should a candidate member, in the course of his probationary period, prove unsuitable and his personal qualities make him unfit for admission to membership of the CPSU, the Party organisation shall pass a decision refusing him admission.

More than two thirds of the applicants are members of the YCL. This shows that the rising generation is deeply devoted to the ideals of communism and that the vital forces of the CPSU are inexhaustible.

The ranks of the army and naval Party organisations are reinforced by young men who have excellent results in combat training and political education, have earned the recognition of the primary Party organisation, of the entire military collective, and are active in the service and in social work.

It is the duty of a CPSU member to put Party decisions firmly and steadfastly into effect, to explain the policy of the Party to the masses, to help strengthen and multiply the Party's links with the people, to respond promptly to the needs and requirements of the working people. Communists work tirelessly to create the material and technical basis of communism, protect and increase public socialist property. Communists shall combat all manifestations of bourgeois ideology and mo-

reality, master Marxist-Leninist ideology, improve their ideological level and contribute to forming the man of communist society.

It is laid down in the Party Rules that every Communist has the duty "to be an active proponent of the ideas of socialist internationalism and Soviet patriotism among the masses of working people, to combat survivals of nationalism and chauvinism, to contribute by word and deed to the consolidation of friendship among the peoples of the USSR and the fraternal ties linking the Soviet people with the peoples of the countries of the socialist camp, with the proletarians and other working people in all countries."

The Party has one discipline, equally binding on all of its members, irrespective of their past services or the position they occupy. Communists must be truthful and honest with the Party and the people, they must keep Party and state secrets, develop criticism and self-criticism, resist all actions injurious to the Party and the state, and give information on them to Party bodies, up to and including the CPSU Central Committee.

The Rules make it binding on the Communists to do their utmost to strengthen the defence capacity of the USSR, tirelessly to work for peace and friendship among the peoples.

The Party organisations have a wide range of means at their disposal for influencing their members who fail to live up to the requirements of the Party Rules.

Minor offences are treated with measures of Party education and influence in the form of comradely criticism, Party censure, warning or reproof.

A Party member or candidate member who fails to fulfil his duties as laid down in the Rules, or commits other offences, shall be called to account, and may be subjected to the penalty of admonition, reprimand (severe reprimand), or severe reprimand with entry in the record card. The highest Party penalty is expulsion from the Party. The decision to expel a Communist from the Party is taken by the general meeting of a primary Party organisation. The decision of the primary Party organisation expelling a member is regarded as adopted if not less than two-thirds of the Party members attending the meeting voted for it.

In army and navy Party organisations the decision to expel a member takes effect after its endorsement by the Party commission of a superior

Party organ. An expelled Party member retains the right to appeal within a period of two months to the higher Party bodies, up to and including the CPSU Central Committee.

The CPSU Rules also lay down:

"Should a Party member commit an indictable offence, he shall be expelled from the Party and prosecuted in conformity with the law."

The measures of Party influence are not so much punitive as educational. They are based on the fundamental method of Party influence, namely persuasion. The question of calling a Communist to account for unconscientious fulfilment of duties laid down by the CPSU Rules is a natural response of the collective of the primary Party organisation concerned. An offence committed by a Communist always affects the entire collective to a certain degree. It shows that the entire Party organisation has committed blunders and has shortcomings in its work.

A Party member has the right: to elect and be elected to Party bodies, to discuss freely questions of the Party's policies and practical activities at Party meetings, conferences and congresses, at the meetings of Party committees and in the Party press, to express and uphold his opinion openly as long as the Party organisation concerned has not adopted a decision; to criticise any Communist, irrespective of the position he holds. Those who commit the offence of suppressing criticism or victimising anyone for criticism are responsible to and will be penalised by the Party, to the point of expulsion from the CPSU.

A Party member can address any question, statement or proposal to any Party body, up to and including the CPSU Central Committee, and demand an answer on the substance of his address. He can attend in person all Party meetings and all bureau and committee meetings that discuss his activities or conduct.

The CPSU bases its work on unswerving adherence to the Leninist standards of Party life — the principle of collective leadership, the promotion, in every possible way, of inner-Party democracy, the activity and initiative of the Communists, criticism and self-criticism.

The provisions of the Rules on the duties and rights of a Party member are of fundamental importance. In many ways they determine the make-up of a Communist, his qualities as a political fighter for the triumph of the great cause of the Communist Party.

ARMED FORCES

HELICOPTER DEVELOPMENT DISCUSSED

Moscow SOVIET MILITARY REVIEW in English No 9, Sep 80 pp 24-26

[Article published under the heading "Weapons and Equipment" by Engr Lt Col Yu. Malakhov, Cand. Sc. (Technology): "Helicopters"]

(Text)

The idea of the helicopter was conceived by Leonardo da Vinci, an outstanding 15th century Italian scientist, mechanic and designer. His manuscripts contain a drawing showing a flying vehicle in the form of spiral wings on a rotary shaft secured on a round base.

M. V. Lomonosov, a prominent Russian scientist of the 18th century, was the first to realize the helicopter idea in practice. At a session of the Russian Academy of Sciences on July 1, 1754, he demonstrated a working model of a flying vehicle with two rotors mounted on a single axis, rotatable in opposite directions by a clockwork mechanism. The minutes of the session testify that with the spring wound up the model "quickly gained altitude." Lomonosov's rotor arrangement was called a coaxial layout, which is widely used on modern helicopters.

The beginning of the 20th century was marked by rapid development of helicopter manufacturing. Early in 1907 the Russian military engineer E. Antonov started work on a helicopter with feathering single rotor blades.

In 1908-09 I. Sikorsky, a student of the Kiev Polytechnical Institute, who subsequently became a famous aircraft designer, built his first helicopter.

Early in 1909 S. Vuryev, a student of the Moscow Higher Technical School, developed a steering single-rotor helicopter. To ensure the helicopter's controllability in flight, a swashplate was provided, which was of paramount significance for helicopter manufacturing. Owing to this innovation the helicopter was given the possibility to manoeuvre in direction.

Being the most reliable, S. Vuryev's single-rotor helicopter won universal acclaim. The majority of modern helicopters are steering-rotor machines.

In 1911 the Vuryev-designed helicopter was produced to be demonstrated the following year at the 2nd International Aeronautics Exhibition. The author was awarded a gold medal for his invention. It is noteworthy that other countries produced their first single-rotor helicopter only 12 years later.

Vuryev was also the first to develop the theory of a windmilling

rotor, i.e. to try to solve the problem of a helicopter safe gliding in the event of engine failure.

Helicopters began to be appraised at their true worth early in the 1940's. On August 14, 1932, a Soviet-designed single-rotor TsAGI-1-EA helicopter, piloted by Professor A. Cheryomukhin, climbed to an altitude of 405 m, which was a major technological achievement at the time. It is worth mentioning that shortly before, in 1929, the Italian designer Coradino d'Ascanio produced a helicopter with two coaxial rotors which climbed to 18 m during the tests, this being considered a great success in helicopter production.

In 1936 the single-rotor TsAGI-11-EA helicopter with a wing and two tractor propellers on the outer wings appeared. The creation of this helicopter testified not only to the design bureau's high achievements, but also to their far-sightedness, for their helicopter represented the first prototype of the rotorcraft — a flying vehicle which arouses a keen interest in present-day helicopter designers.

Helicopter-design work did not relent during the years preceding the Second World War. Thus, the design bureau under I. Bratukhin developed and manufactured the Omega side-by-side twin-rotor helicopter.

The Second World War delayed further helicopter development, designers' efforts being chiefly aimed at airplane improvement. Moreover, helicopter manufacturing proved so complicated a matter that many helicopter designers switched over to airplane designing.

The postwar period marked a new stage in helicopter production, which, towards the second half of the century, passed over from the experimental to the serial production stage. Thus, the design bureau under M. Mil developed its helicopter simultaneously with a

US helicopter, the flying characteristics of both machines being basically similar. An unusually long life is one of the finest qualities of the Mi-1, which is still in use. The helicopter's cruising speed is 130 km/h and its flying range is 500 km. This machine allowed 17 world records to be established for helicopters with a flying weight from 1,750 to 3,000 kg.

The Mi-4, with twice the capacity of the Mi-1, appeared in 1952. At the Brussels World Exhibition it was awarded a gold medal. The helicopter's high flying qualities are attested by world records in lifting power and speed established at different times. On April 25, 1956, the Mi-4 lifted a two-ton load to an altitude of 6,017 m, and on March 26, 1960, a one-ton load to 7,575 m.

The creation of high lifting power helicopters was impeded by lack of powerful engines. The appearance in 1957 of the 5,500-hp D-25V engine promoted the manufacturing of the world's biggest helicopter Mi-6 with a take-off weight exceeding 40 tons. Moreover, it was not only the world's biggest, but also fastest machine, whose speed record of 340 km/h set in 1964 remained unsurpassed for many years.

The Mi-10 crane helicopter created on the basis of the Mi-6 demonstrated Soviet designers' ability to develop not only the fastest, but also the most powerful rotary-wing aircraft. In 1965 the Mi-10 lifted a load of 25 t to 2,830 m, thus establishing the world lifting power record.

The use of new shaft turbine engines promoted the creation of a second generation of the Mi-type helicopters, with still greater lifting power and more reliable and economical. The Mi-1 and Mi-4 were replaced by the Mi-2 and Mi-8 respectively. Retaining almost com-

pletely the dimensions of their predecessors, the new helicopters are largely superior to them in speed and lifting power. The Mi-8, for example, can lift almost twice as heavy loads as the Mi-4, its cruising speed being 220 km/h as against the 150 km/h developed by the Mi-4.

Considerable success was also achieved by the design bureau under N. Kamov. From 1953 to 1968 it produced the twin-rotor coaxial helicopters Ka-15, Ka-18 and Ka-26.

The rapid development of helicopter manufacturing during the last decades can be explained by the wide use of helicopters both in the military field and the national economy. Unlike the airplane, the helicopter is capable of hovering and performing vertical take-off and landing, thus obviating the need for large and costly aerodromes.

Military helicopters are used for the land forces, the navy and the air force to drop and airlift troops and in search and rescue operations. Armed helicopters carry out independent combat missions. In the navy they are chiefly used against enemy submarines.

During the American intervention in Vietnam and the Israeli Middle East aggression, specialists in the USA and other countries came to the conclusion that assault helicopters with powerful armament and special sighting devices were essential for the successful conduct of combat operations. At present such helicopters are in service in the armies of many countries.

In the national economy helicopters are put to diverse uses. The development of untapped riches in Siberia and the Soviet Far East is inconceivable without helicopters. The Mi-6 and Mi-10 are used to advantage in erection work. For instance, during reconstruction of the shops of an enterprise the

MI-10K was used to install 7-ton plus intermediate floor trusses, thereby permitting the production process to go on uninterrupted.

Helicopters are also widely used in agriculture for soil fertilization and pesticide spraying.

Further progress in helicopter manufacturing will undoubtedly expand the use of helicopters in all spheres of human activity.

At present one can trace several trends in helicopter production, the first being the improvement of existing models aimed at enhancing their economy and reliability. This trend includes the development of more economical engines, improvement of the production process, use of new materials and perfection of all helicopter systems.

Another trend is concerned with increasing helicopter speed. The usual single-rotor model has exhausted its potentialities in this respect. The striving for further increase in speed has urged designers to search for new ways of achieving it.

The switch-over to the rotorcraft — a helicopter with an additional propeller to build up a ho-

izontal thrust, whose first prototype was the 1936 TsAGI-II-EA helicopter, will allow the 400 km/h speed limit to be broken.

According to certain foreign specialists, the speed may be considerably increased by using a rotor partially retractable into its hub, and also a tilt and a stopped rotor.

Most promising is a folding-rotor helicopter, which is expected to attain a speed of 800 km/h.

Modern military helicopters are developing along the lines of constant improvement in design and aerodynamic properties, and use of new materials, instrumentation and armament. Specialists in many countries are searching for new ways to ensure flight in bad weather, at night, in icing conditions and at minimum altitudes. All this will expand the helicopters' tactical possibilities and enhance the efficiency of their actions against ground targets.

The development of helicopter manufacturing has posed many complicated theoretical, design and production problems. There is no doubt, however, that these problems will eventually be solved.

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ARMED FORCES

IMPORTANCE OF SELF-DISCIPLINE STRESSED

Moscow SOVIET MILITARY REVIEW in English No 9, Sep 80 pp 30-31

[Article published under the heading "The Making of a Soldier" by Col L. Zhuravlyov: "Self-Discipline"]

[Text]

Service in the army and navy, the everyday activity of the personnel of the units and ships, the entire life of servicemen are subordinated to an established order and concerted rhythm. Marshal of the Soviet Union D. F. Ustinov, member of the CPSU Central Committee Politbureau, Minister of Defence of the USSR, said:

"Discipline rallies the men, increases their strength and potentialities ten-fold, helps to secure the goals set quickly, with minimum losses and in a brief period of time. On the contrary, lack of discipline gives rise to disorder, disorganisation, in conditions of war it results in unnecessary losses and defeat."

Every person, the serviceman in particular, must learn to control himself, his actions, to display poise and self-possession, be able to notice in time his own error, his weakness and to remove them without waiting for the commander or his comrades to tell him to do so. These qualities form what is known as inner discipline or self-discipline. In other words, self-discipline implies compulsive subordination of a man's actions to the laws, rules and standards of behaviour worked out by society and tested by experience.

Just like any other moral-legal category, self-discipline reflects the relations governing the members of a given society. The highest grade of self-discipline is possible above all in a society free from exploitation of man by man, in conditions of real, and not false, personal (individual) freedom. Self-discipline stems from the nature of socialist society and corresponds to its economic and spiritual requirements.

In the army self-discipline plays a special role. A man cannot be considered to have high moral and combat qualities, unless he can display self-control, unless he can control his actions, desires, feelings, unless he can mobilise his potentialities for the execution of the mission assigned. Such a man cannot become a real fighter, because he will be unable to subordinate his interests to those of the collective and to accomplish a difficult mission on his own.

Self-discipline implies that a serviceman is able to appraise his actions critically, to realise his personal responsibility for the accomplishment of the tasks by the entire collective. It is manifested in the desire of the serviceman to be organised, to observe order despite hardships and privations, to fulfil the regulation requirements exactly on his own initiative, proceeding from internal motives. Self-discipline reflects a man's active attitude to life. Self-discipline enables him to perform acts of self-sacrifice and feats of heroism. This is confirmed by the experience of the Great Patriotic War of 1941-45.

...In February 1943 a Soviet subunit was liberating the village of Chernushki, Pskov Region, when powerful machine-gun fire from an enemy earth-and-timber emplacement compelled the attackers to hit the ground. It was imperative to destroy the nazi pillbox. Private Alexander Matrosov crawled to the pillbox and hurled two hand grenades at it. The enemy machine gun was silenced, but only for a short while. The attack was in danger of being bogged down. The only alternative for

Matrosov was to close the embrasure with his own body. He realised, of course, that he would pay for this with his life. However, this did not stop him from doing as his sense of duty bade him.

Today self-discipline is just as important. Service in the army and navy makes it necessary for the men to display self-reliance in the execution of their duties. A commander or superior is not always at hand. For instance, a sentry at his post, a radio operator on duty and a radar operator are alone. Conscientious performance in such cases largely depends on self-discipline. It is the highest form of discipline.

The feats performed by Soviet servicemen both during the war and in time of peace have shown that self-discipline is an indicator of their moral make-up, ideological maturity and conscientiousness.

During the war Soviet servicemen repeated the exploit of Alexander Matrosov hundreds of times, closing the embrasures of enemy weapon emplacements with their own bodies. Everyone of them deliberately risked his life. In doing so they acted proceeding from internal motives.

Soviet servicemen have performed numerous feats in time of peace, in pursuit of their daily duties — in exercises, cruises and flights. Thus, the combat engineers have rendered harmless over 200 million shells, mortar and air bombs that remained in the USSR after the war. Over seven thousand combat engineers and pyrotechnists have been awarded Orders and medals for this. Among them are Praporshchiks S. Akimov and I. Savin. Each of them rendered harmless 60,000 explosive objects.

Initiative is closely linked with self-discipline. Initiative and a creative approach to a mission are indicative of will power and of a man's ability to be self-exacting. Only a person with a high sense of duty, who regards a commander's order as his own, will search for new ways to carry out his assignment.

Military service develops self-discipline. Tactical exercises, flights, cruises conducted in conditions as close as possible to those of real combat, field firing, marches in difficult conditions, crossing of water barriers and negotiation of other barriers, prolonged submarine cruises without surfacing develop in the men staunchness to surmount the hardships of military service, to exhibit initiative and resolve in dangerous and tense situations. At political lessons, current events reports and talks the men realise to a greater degree their personal responsibility for their mission

of protecting the peaceful constructive labour of the Soviet people, they develop a striving for better fulfilment of their patriotic and internationalist duty.

Military collectives, Party and YCL organisations exert a favourable influence on the development of self-discipline.

Private Samvel Sharabidze did not always meticulously carry out the orders of his commanders. He was frequently late in forming up. The commanders tried to influence him by individual educational methods. They were helped by the collective and the company Party and YCL organisations. Samvel's comrades did not overlook a single error or blunder. They taught him to control his actions, to correct his deficiencies without waiting for the commanders to point them out. This helped Private Sharabidze to become a really proficient soldier.

Ideological education conducted in the subunits also helps the man develop self-discipline.

A man learns to control his actions through regularly combating his own weaknesses, and shortcomings. This is self-education. To do so the man must know how to analyse his own actions and to appraise them in the light of the requirements presented to him. The main element in self-education is a desire for moral self-improvement, persistence in working for the goal a man has set himself.

Autosuggestion plays a big role here. It amounts to constant tuning oneself to a definite frame of mind and mental state, to a man's ability to convince himself that he is able to secure success and surmount difficulties. Autosuggestion helps to overcome fear or to suppress it altogether. Many facts testify to this.

Education in self-discipline implies systematic checking and appraising of one's actions, the results of combat training and political education, one's attitude to one's comrades and to the collective. As a rule, this is accompanied by self-criticism. In summing up the results of his work a man will critically weigh his actions to carry out his military duties and obligations in the best possible way.

Positive example is of no small importance. Men following this example seek to develop better qualities in themselves. Soviet soldiers see their ideals in distinguished Party leaders, heroes who have performed feats in the name of the Homeland, commanders, political workers and also vivid characters in fiction and films.

Self-training is an important element of self-discipline. Self-training helps develop such im-

portant qualities as memory, will power, daring, determination, endurance and agility.

The conditions of military service are particularly conducive to this. As a man learns to surmount the difficulties which inevitably arise in combat training, execution of daily routine, fulfilment of various missions, he steels his will, develops positive habits and overcomes harmful ones. The more a man develops positive habits, the more stable is his behaviour, the higher the level of his self-discipline.

Self-discipline is impossible without the ability to check one's own behaviour. Self-control helps control one's thoughts, speech and feelings, suppress negative emotions, emphasise positive emotions and to develop balanced behaviour.

Quite often an individual will compel himself to do what is necessary and not what he wants to do at the given moment. In other words, in developing self-discipline man learns self-compulsion.

In the case of the majority of Soviet servicemen self-discipline has become an inner need. They retain this excellent quality after honourable discharge.

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ARMED FORCES

MILITARY HEROISM, SELF-SACRIFICE DISCUSSED

Moscow SOVIET MILITARY REVIEW in English No 9, Sep 80 pp 36-37

[Article by Co. V. Khrobostov: "Self-Sacrifice and Heroism"]

[Text]

Thirty-five years have passed since the last shot of the Second World War (1939-45) was fired. Mankind at last obtained long-awaited peace. The peoples paid a terribly high price for it. The Soviet Union experienced the severest trials and suffered the greatest losses. The USSR made the decisive contribution to victory.

To bring Victory Day closer the Soviet people spared neither blood nor life on the battlefields, nor efforts on the home front. The exploits and sacrifices of millions merged into a common immortal feat — the great victory over the hated enemy.

In the second year of the Great Patriotic War Junior Lieutenant Rodionov was patrolling the air space over Moscow. Suddenly he spotted a Junkers-88 bomber. In an attempt to escape from the fighter the enemy pilot sent his aircraft into a steep dive. Rodionov (who happened to be out of ammunition because of an earlier engagement) caught up with the nazi plane at an altitude of 50 metres. To prevent him from getting away Rodionov struck the wing of the Junkers-88 with his airscrew. Though a slice of the wing was cut off the Junkers-88 still carried on. Leveling out his fighter the Soviet pilot swooped on the enemy again. The damaged screw caused a violent vibration. In addition, the fuel gage showed that his tanks were nearly empty. Rodionov could not give up the pursuit. It would have been a disgrace. Developing maximum power Rodionov slowly closed with the enemy. One hundred metres. Fifty, twenty. . . Ramming the enemy aircraft in the tail plane, he sent it crashing to the ground.

I quote this instance to show that Soviet servicemen strained every effort to defend their Socialist Homeland.

The combat and labour feats of the Soviet people demonstrated the patriotism and inexhaustible moral strength of people emancipated from exploitation. The prophetic words of V. I. Lenin came true. He said: "A nation in which the majority of the workers and peasants realise, feel and

see that they are fighting for their own Soviet power, for the rule of the working people, for the cause whose victory will ensure them and their children all the benefits of culture, of all that has been created by human labour—such a nation can never be vanquished."

From the very beginning of the Great Patriotic War of the Soviet people against nazi Germany the peoples of the world regarded the Soviet Army as a force capable of smashing the Hitler Wehrmacht and burying the nazi leader's plans for securing world domination.

During that stern period Soviet servicemen demonstrated boundless devotion to the cause of socialism, wonders of staunchness, courage and mass heroism. Thousands upon thousands of officers and men earned immortality in the defence of Brest Fortress, Odessa, Sevastopol, Leningrad, Novorossiisk, Kerch, Kiev and Leningrad, in the battles of Moscow, Stalingrad, Kursk, in the Northern Caucasus, on the Dnieper, in the foothills of the Carpathians and finally in the assault on Berlin.

The history of the Great Patriotic War records about 300 cases of officers and men sacrificing their lives at critical moments of battle to secure victory over the enemy, to accomplish their missions and saving the lives of their comrades. Many of them closed the embrasures of weapon emplacements with their bodies. Moved by patriotic senti-

ments dozens of Soviet pilots flew their damaged planes at enemy troop concentrations, tanks and motorised columns. Others risked their lives and rammed enemy planes. One of these was Captain Nikolai Gastello. While bombing an enemy tank column, his plane was hit by an enemy anti-aircraft shell. The fearless pilot flew his burning machine into the tanks and fuel trucks, which exploded together with the hero's plane.

V. I. Lenin said that danger is an element of war. In war not a single minute is free from danger. A feat is heroic, because it is performed at a moment of extreme danger. Only a man who places the call of duty above all else is capable of performing a feat of valour. To perform a feat one has to exhibit daring, valour and fearlessness in battle, to defy death. The story of Sergeant Nikulin's exploit is moving, it inspires pride in the Soviet soldier. It was published during the war in a front-line paper. On June 24, 1942, a group of Soviet soldiers crawled to an enemy trench and attacked it. In a brief encounter several nazis were killed. In the heat of battle Sergeant Nikulin did not notice that he was surrounded. But even then he fought gallantly. Soon he was wounded and his strength was failing. When several nazi soldiers fell upon him he exploded a hand grenade hanging from his belt and killed his assailants.

A Russian proverb says: "The glory of heroes gives birth to new heroes."

This is fully corroborated by the experience of the war. A heroic act by one soldier soon became a standard of behaviour for dozens, hundreds and even thousands of defenders of the Homeland.

Heroism is the extreme manifestation of a man's morale. In other words, heroism is a man's inner moral-psychological state enabling him always to be resolute, daring, resourceful to secure victory over the enemy at any cost. The elements of heroism are self-sacrifice, staunchness, courage and valour. Heroism is manifested in a feat — an outstanding deliberate act of self-denial. The feats Soviet soldiers performed during the war are noble and humane acts. They are a concentrated reflection of a Soviet man's generous heart, of his moral superiority over a man serving in a bourgeois army.

Guards Private Sushkov performed a legendary feat. During a battle the medical orderlies could not remove all the wounded to a safe place. Ten wounded officers and men were still in the firing trench when a nazi tank headed for it. Realising the danger, Guards Private Sushkov engaged the armoured monster single-handed. To save the lives of his wounded comrades he tied several bunches of grenades to his belt and threw himself under the tank. Several dozen men who had shed their blood for the Homeland were saved by the courageous Guardsman.

The title of Hero of the Soviet Union — the highest award in the USSR — was conferred on more than 11,600 officers and men for feats performed during the Great Patriotic War. Out of them 98 received the Gold Star Medal

of Hero of the Soviet Union twice. Four Heroes of the Soviet Union, including A. Alyoshin, a gunner, and I. Drachenko, a pilot, were awarded the Order of Glory, 3rd, 2nd and 1st Class. Among the Heroes of the Soviet Union there are representatives of all the nations and ethnic groups inhabiting the USSR. Eighty-seven Heroes were women. Ten thousand nine hundred army and naval units and formations were awarded Orders of the Soviet Union. Seventeen combined arms and tank armies, 90 infantry, cavalry, tank, mechanised and air corps, over 200 divisions and many other units and formations were made Guards units and formations. Partisan and underground fighters also acted heroically in the enemy rear. The Homeland rewarded them generously for their feats. They received 184,000 combat Orders and medals. One hundred and ninety partisans were honoured with the title of Hero of the Soviet Union.

The mass heroism demonstrated by Soviet people was the result of the educational work the Communist Party conducted in pursuit of V. I. Lenin's behests. During the Great Patriotic War the Party mobilised the working people, and the defenders for the rout of the nazi aggressors. The military councils of the fronts and armies, the commanders, political bodies, Party and YCL organisations focussed their attention on educating courage, staunchness, self-sacrifice and heroism in the officers and men.

The personal example set by the Communists played a great role. The slogan: "Communists will be in the forefront!" was born in the battles of the Civil War (1918-20). During the war against fascism it became a law of life for the Communists. By being the last in retreat and the first in the attack the Communists further raised the prestige of the Leninist Party. Their personal heroism inspired hundreds of thousands of officers and men to perform unprecedented feats of valour. On the eve of heavy battles men would file applications for Party membership. "I want to go into battle as a Communist," they would say — words which were to become a legend.

The glory of the valiant sons of the Socialist Homeland shall never fade. Comrade L. I. Brezhnev pointed out that the Soviet people's boundless respect for the memory of heroes who gave their lives for the Homeland has been proved by the erection of memorials to combat glory in dozens of our cities, and thousands of our villages. Majestic memorial complexes have risen in Volgograd and Leningrad, Moscow and Smolensk regions, Byelorussia and the Ukraine, the Baltic Republics and the Caucasus.

The officers and men now serving in the army and navy have taken over the traditions of the older generations. The young army and navy men regard the immortal feats of the fighters of the Civil War and the Great Patriotic War as examples of selfless service to the Homeland. From these exploits they get the moral strength to develop in themselves such qualities as courage, indomitable staunchness and will for victory. This is evidenced by numerous examples from the life of subunits and units of all fighting services and arms of the Soviet Armed Forces.

For instance, the crews of Soviet atom powered submarines circumnavigated the world without surfacing. Combat engineers have rendered harmless many million mines, shells and bombs left over from the war. These are certainly facts. During tactical exercises, cruises, guard and alert duty, privates, sergeants, petty officers, praporschiks, mit-chmans and officers have performed numerous exploits.

The traditions of selfless struggle for the freedom and independence of the Socialist Homeland developed during the Civil War and enriched during the war against Nazi Germany have always been and continue to be an inexhaustible source of courage and staunchness, valour and heroism for the personnel of the Soviet Armed Forces.

The Soviet people have not forgotten, nor shall they ever forget the stern period of the war or the bright images and the names of their heroes. They live in the hearts of the younger generations. Those who experienced the hardships of the war, all decent people in the world realise that the best monument to the heroes and victims of the war is friendship between the peoples and peace on earth. That is why the CPSU and the whole of the Soviet Union are doing their best to prevent the outbreak of another war; that is why they are conducting a peaceful policy in the interests of all peoples on earth.

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AIR FORCES

PSYCHOLOGICAL DEMANDS ON AIRMEN DISCUSSED

MOSCOW SOVIET MILITARY REVIEW in English No 9, Sep 80 pp 34-35

[Article by Col S. Davtyan: "Airmen's Psychological Stability"]

[Text]

The specific features characterising modern air combat make great demands on an airman's psychological qualities. To secure success in combat it is not enough for the pilot to be skilled in operating his aircraft. He must also be psychologically stable, he must be able to resist the effect of adverse factors in air combat.

An air engagement is full of surprises, dangers and unforeseeable situations. Such situations may adversely affect the airman. It is important to bear these factors in mind in preparing for action in combat. In time of peace it is natural for a pilot to prepare for a sortie, to work out versions of action in the air. In a tense combat situation this, as a rule, is impossible, because the developments of an engagement are hard to predict. If an airman is unprepared for rapidly changing conditions, this might cause undue emotional tensions which might result in a psychological breakdown. However, a psychologically stable man will be able to resist the strain of combat and emerge victorious from it. To do so he must have will power, he must display daring, determination and great activity.

In raising psychological steeling it should be borne in mind that every airman has definite skills forming what is known as a dynamic stereotype — a system of conditioned reflex connections in the cerebral cortex. It is impossible to restructure a dynamic stereotype in a short time. To do so it is necessary to conduct many drills in a context of great psychological stress. If a pilot masters flying skill in conditions closely resembling actual combat, he acquires psychological stability, he is able to resist the strain of modern combat, to achieve victory in spite of the unfavourable factors arising from sudden changes in the air situation.

To acquire psychological stability the airman must develop self-confidence, a positive attitude towards flying missions, efficiency and other qualities and skills.

Self-confidence inspires a man, brings into action the latent strength in him and fully reveals his abilities. During my period of service I saw quite a few young flying school graduates lose their self-control and display irresolution when faced with difficulties. As a result, they would fail to

achieve the required level of proficiency. As a rule, having failed to accomplish a mission, such a pilot was confronted with a psychological barrier which inspired him with fear of flying. And such a barrier is not easy to surmount.

Experienced commanders strictly follow a sound procedure for conditioning airmen for flying. They normally start by assigning a definite number of flying missions to one pilot or another, correctly determining the sequence in which they should be executed. They do not permit "skipping" any drills or exercises, invariably adhering to the pedagogical principle of proceeding from the simple to the more difficult. These commanders know how to build up stresses and loads. Every airman working under such commanders who apply effective methods of instruction masters the necessary knowledge and skills in carefully thought out succession. He gradually acquires confidence in his capabilities and seeks to do better than the time before.

It is essential for the commander to detect the appearance of new skills "sprouting" in a pilot, his progress, no matter how modest, in mastering the art of flying. Drawing the trainee's attention to the positive points, encouraging him to make further progress, an experienced commander thus helps him establish himself as a pilot. Concentrating the young airman's attention on shortcomings, blunders and miscalculations may cause him to lose his self-confidence, give rise to confusion. This does not mean that an error should not be analysed. On the contrary, every mistake should be dealt with to prevent repetition. However, a critique will not produce the results desired unless the commander draws attention not only to the cause behind blunders, but also to the course of action to be taken to prevent them in the future. In doing so the commander must give encouragement to the young airman.

Every mission imposes a definite strain on the airman's moral and physical strength. Experience has shown that a man who is capable of tuning himself psychologically accomplishes his mission successfully. This means that he must concentrate, think out the plan of flight, the sequence of actions, "play over" in his mind several main versions of air combat against the enemy. Concentration on psychological tuning before performance of a mission, i.e. focussing the attention, activation of the mind (so-called combat excitement), is a factor contributing to success. Reliance on previous experience, haste, lack of attention to preparations for a mission, lack of psychological tuning to determined action normally cause the pilot to be slack and passive in the air. That is why the commanders should always pay attention to the way their subordinates prepare themselves for air operations and to their psychological tuning to flying missions.

A pilot's psychological stability is closely linked with his level of physical fitness. Increasing speeds and altitudes, physical loads in executing combat manoeuvres, pressurised suits and helmets, the vast volume of information and other factors give rise to nervous, emotional and physical fatigue in the airman. Even after flying an elementary mission a man may feel somewhat tired. That is why such qualities as strength of will, daring, determination, staying power are largely dependent on an airman's physical endurance and his physical fitness. Therefore, unless he trains regularly on the trampoline net, parallel bars, horizontal bar, lopping swing and, unless he goes in for athletic games, he will hardly be distinguished for psychological stability and mental endurance. The airman who regularly practises physical training and sports will display greater psychological stability and mental endu-

rance in the air. Soviet Air Force units and subunits pay special attention to physical training as a vital component of psychological stability.

Conditioning of pilots to unexpected changes in the situation, developing in them the ability to take the right decision, though exhaustive information may be lacking, play a big role in moulding in them emotional stability and will power. Though preparations for a mission may be well organised, it is impossible to foresee all possible situations that may occur in flight. It is important to teach airmen skill in estimating an unexpected change in the situation and taking the right decision.

To develop emotional stability and dynamic thinking in airmen, commanders introduce unexpected narratives at lessons, especially at drills on special simulators and in the cabin of the aircraft. Airmen are required to fulfil individual assignments in complicated questions of aircraft control and combat.

Simulators and trainers are effective means for developing airmen's dynamic thinking and correct actions in conditions of limited and contradictory information. They are used to simulate flying missions under particularly difficult conditions, with faulty instruments that give no or contradictory readings, with false emergency signals, loss of contact with the flight

control officer, etc. Regular drills of this kind in trainers condition airmen to surprises and critical situations. If the airmen is faced with such situations in flight, he will be ready for them. This enables him to retain his poise, clarity of thought, quick response. In other words he acquires what is known as psychological stability.

To bring the conditions of training closer to actual combat the unit command organises tactical air exercises, service firing, bombing and launching of missiles. Such exercises and drills confront the airmen with tense situations, constantly changing conditions and give them a chance to employ service ammunition. They are an effective means for psychological conditioning of airmen. Of course, if the command avoids conditionality, and simplification. The use of such methods only discourages the personnel and inhibits their progress in acquiring the necessary standards of combat proficiency.

Moulding psychological stability in flying personnel is a difficult and complicated process. To achieve their purpose the air commanders and political workers must have the necessary knowledge and skills. The achievements in this undertaking will be all the greater the better they take into account the factors and specific features typical of flying and the individual features of the flying personnel.

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AIR DEFENSE FORCES

MAINTENANCE OF THE ZSU-23-4 AA SELF-PROPELLED GUN

Moscow SOVIET MILITARY REVIEW in English No 9, Sep 80 pp 22-23

[Article published under the heading "Specialist's Tips" by Col V. Papko: "ZSU-23-4 Maintenance"]

[Text]

Servicing the ZSU-23-4 AA SP gun consists chiefly in performing scheduled maintenance operations to keep the vehicle in constant combat readiness.

The ZSU-23-4 is reliable and simple to operate. However, like any other equipment, it may be affected by the environment, natural wear of mechanical parts and units, aging of lubricants and radio components or the crew's negligence may lead to faulty operation or even a breakdown. To avoid this, different kinds of scheduled maintenance are carried out. They include check inspection, daily (routine) maintenance, maintenance No. 1, maintenance No. 2 and seasonal maintenance.

Check inspection is performed prior to departure, at halts and on return to the park. Before departure the crew fills up the vehicle with fuel, oil and coolant, checks serviceability and fastening of towing ropes, entrenching tools, cases, boxes, SPTA set and other equipment. They must see to it that there is no leakage through the connecting pipelines, valves or plugs of the engine compartment. If leakage is detected, its cause should be found out and appropriate measures taken to eliminate it.

The crew check fastening of the barrel plugs, locking of the sighting device protective caps, turret, cannons and antenna. After starting the engine and checking its operation under different conditions care should be taken to inspect the shutters of the radar instrument complex ventilation system air inlets and outlets. Then the radio is tuned to preset frequencies and internal communication checked.

At halts the crew spend 15-18 minutes in inspecting the running gear and engine compartment. The running gear is checked for the condition of the road wheels, track links, track pins, plugs and track distance rings. The

defects detected should be eliminated without delay. Tensioning of tracks is done with due consideration for the ground on which the vehicle has to move. Hard ground requires that the track should touch the third and the fourth road wheels without sagging. When running on loose or soft soils, the tracks are slackened in such a way that their upper runs touch 3-4 road wheels.

Before inspecting the vehicle on returning to the park, see to it that the cannons are fully unloaded. For this, the shields and minor chutes are removed, cartridge cases opened, and the cannons alternately armed, movable parts being retained by holding back the cable. Then remove the magazine cover to make sure that there are no cartridges in the cartridge case or on the ramming line. This done, close the magazine cover and smoothly release the movable parts, holding the manual reloading cable.

Following this, check the running gear, top up fuel and lubricants, measure the pressure of air in the air starting cylinder and of oil in the primary power supply system reduction gear, and clean the filters of the radar instrument complex ventilation system and other units and assemblies. Depending on the duration of the march, season, condition of roads and other factors, all these preventive measures take one to four hours.

Routine or daily maintenance is performed for the purpose of putting the vehicle in order after exercises or firing, and also to keep it serviceable at all times. When this kind of maintenance is carried out, heavy-duty units and mechanisms are inspected and cleaned by the crew at parking grounds or maintenance points. On park servicing days the duration of daily maintenance is brought up to six hours. In some cases, if there is room available, the work may be done at maintenance points. General super-

vision of daily maintenance operations is done by the platoon commander.

When performing routine maintenance, special attention should be paid to the condition of the storage batteries. Without removing them from the vehicle, check the degree of charging, level of the electrolyte, condition of the terminals and wires, cleanness of battery surfaces and functioning of the battery compartment ventilation system. The degree of charging may be determined by the density of the electrolyte and by voltmeter readings. If the batteries are fully charged, the total voltage in both groups and in each individual group should be at least 48 V and 24 V respectively. The minimum permissible total voltage should be 40-42 V, and that in each group, 20-21 V. Lower voltage requires that the batteries should be charged, otherwise they will fail to ensure adequate power supply for total voltage consumers, particularly in the cold season.

Also to be checked during routine maintenance are the air pump filters and sighting device continuous drying nozzles, condition of generator commutators and slip rings, and of the primary power supply system converters. The automatic AA cannons, antenna rod telescopic braces and drive mechanism are cleaned and lubricated, the line of elevation and the line of sight, and also the static precision of coordinate resolvers are adjusted, following which the ZSU-23 4 is checked for proper functioning.

Maintenances No. 1, No. 2 and seasonal maintenance are the most labour consuming jobs. The latter is ordinarily combined with one of the former. Three days are allotted to perform all the operations prescribed. Maintenance No. 1 is carried out twice a year or after 250 service hours of the radar instrument complex, or after 1,000-1,100 km of vehicle run.

Maintenances No. 1 and No. 2 are performed at maintenance points. In some cases they may be done in the field, with special ground on turf or hard soil being thoroughly prepared in good time. Individual operations involving cleaning units and dismantling automatic devices are carried out in tents.

Maintenances No. 1 and No. 2 are generally performed by the maintenance and repair section jointly with the gun crew. Care should be taken to prepare in advance workplaces, equipment and the personnel, who must thoroughly familiarise themselves with the methods of performing maintenance operations, and with safety measures.

It should be borne in mind that prior to maintenance operations the cannons must be unloaded. While performing the operations, be sure to observe the following rules. Use only serviceable tools and accessories; apply lubricants to thoroughly cleaned surfaces with the aid of brushes, spatulas or waste. Solidified or thick grease and mud are best removed by washing the parts in kerosene. Excessive lubricants are as harmful as lack of them; oil on

the electric contacts may interfere with normal functioning of instruments.

When eliminating the faults, never alter the design, circuitry or block diagrams, or replace parts in electric circuits with others than those of rated values. It is not recommended to use sand paper, or petrol and other solvents for cleaning the rings and counters of current collectors and setsyns; use only spirit for the purpose. Cables and rubber parts must not be cleaned with diesel fuel, oil or other solvents.

The first day of maintenance No. 1 is generally spent in washing the propulsion engine lubricating system with hot oil and subsequently filling the system with fresh oil. Wash also the MAF, MTs-1 and coarse fuel filters and air cleaner holders. Add oil in the transmission units. To wash filters, use diesel fuel. Filtering elements of fine fuel filters may be dried on racks specially made for the purpose.

When reassembling the fine fuel filter, pay special attention to the sequence of operations. First install an inlet spacer with external cutouts, then a filtering plate, then an outlet spacer with internal cutouts, and so on. The assembled section is placed in the filter bowl so as to allow the locknut to thrust against the oil seal arranged in the spring-loaded cup.

On the second day, adjust the drives of the NK-6 high-pressure fuel pump, engine clutch, gearbox and the planetary traverse mechanisms and brakes, if necessary.

When servicing the power plant the crew should pay special attention to the condition of radiators of the cooling, lubricating and engine air heating systems, and also to the condition and adjustment of the steam-and-air valve.

The running gear is inspected for condition and fastening of idlers and drive sprockets, rocker arm lockpins, hub caps, holders of road wheel and drive sprocket oil seals, suspension torsion bars, and for locking of all control links. Electrical and special equipment is also checked on this day.

On the third day all assemblies and control linkages are checked for serviceability, and the vehicle as a whole and electrical and special equipment for proper functioning. These operations are done in the field. The work done and faults eliminated, the vehicle is cleaned, filled up with oil and parked.

If seasonal maintenance is carried out simultaneously with maintenance No. 2 (which is done once a year, in autumn), take care to renew fuel, coolant and oil, check serviceability of the heating system (pneumatic accumulator and heater), condition of pipelines and their joints in the cooling and heating systems.

Upon completing all maintenance operations, make relevant entries in the vehicle service log. Log-keeping is supervised by the platoon commander.

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PHYSICAL TRAINING FOR SHIP CREWS

Moscow SOVIET MILITARY REVIEW in English No 9, Sep 60 pp 63-64

[Article by Capt 1st Rank A. Pylev: "Morning Exercises on a Ship"]

[Text]

The command to lay in for physical exercises is heard every morning on all naval ships.

They are held every day, except on days of rest and holidays, 10 minutes after reveille. All sailors not on watch or duty participate. The exercises last for 30 minutes. The time is cut down to 10 or 15 minutes during cold periods of the year and in difficult cruise conditions. The exercises are performed in the open air. When weather conditions are unfavorable they take place in corridors, classrooms and crew quarters.

All live rooms on deck and superstructures, convenient for forming up and doing exercises, is used. The tactical composition of the subunits, the proximity of the crew quarters to the places of the exercises, the capacity of these quarters on the upper deck and superstructure and their sanitary-hygienic conditions are also taken into account.

Intensive exercises help to brace up the organism quickly after sleep and to increase sharply the flow of impulses to the cortex. They remove the remains of the inhibition of drowsiness and quicken the sailors' physical and mental activity.

Training systematically in the morning hours and doing various exercises in the open air have a favorable influence on the nervous system, improve the respiratory functions and bronchovascular activity, the metabolism and develop and strengthen the muscles and ligaments. The combination of the exercises with air and water treatment hardens the organism.

The exercises considerably influence the improvement not only of the men's physical qualities but also their professional skills. Free calisthenics, exercises with a ball and on special apparatuses (or considerable increase resistance to resistance).

It has been established that morning physical exercises have a direct and positive influence on the sailors' progress in military and professional training. For example, they give greater stability to mental functions and mental efficiency.

Before ships leave for a cruise the commander's staff of physical training and sport organizes instructions in method. At these briefings the doctrines, which duty is to observe the crew, study the different variants of exercises pre-

pared for the duration of the cruise, specify the procedure for forming up the complement before starting the exercises and the possible re-formation of units, work out the drills for each variant and learn the different movements in order to demonstrate and explain them more efficiently.

Briefing of those responsible for the exercises also goes on while ships are under way. Positive experience is shared and organizational and methodical shortcomings pointed out. Attention is drawn to the correct beginning and ending of the exercises, to the procedure for forming up the complement, to discipline in the ranks, quality and precision in demonstrating and carrying out the exercises and to correctness of commands. At these briefings the organizational and methodical changes in performing the morning exercises are also pointed out.

Naturally, the effectiveness of the exercises depends to a great extent on the ability of those responsible to apply with imagination the general principles and methods of training and educating the men. Of particular importance is the strict order of the exercises, the doing

and most rational use of the exercises.

At the beginning there is pacing and running, then free exercises, after that — movements and actions composing the basic content of the variants of the exercises. And to finish up — easy running, pacing and muscle weakening exercises.

The dosing of the exercises is achieved by shortening the time of the various reformings and intervals between exercises and by brief and clear explanations. The places where the exercises are performed should be prepared in advance and the apparatuses and equipment used rationally.

In dosing out the load of the exercises the functional slowing down of the organism is taken into consideration. The load should be raised gradually. Maximum loads, excessively affecting the organism are not advisable.

The ship's different structures and special equipment, such as the boom, pendant with mountings, rope ladders, spar ladders and low and high horizontal cables are used when performing exercises. On shore there are exercises with the heaving line and on rocking boards.

Not all exercises used in the entire process of the seaman's physical training are selected for morning exercises, but only those that, in general, have already been mastered or are simple and convenient for mass participation. Free exercises, movements and actions are not learned (free exercises are

an exception). All this imparts not only a hygienic, but a training character to the exercises, stipulating their organic ties with other forms of physical fitness training.

When planning morning exercises for the duration of the cruise a time-table of alternating variants of the exercises, aimed primarily at developing the men's specific features, is worked out. The ship's whole complement is acquainted with the plan of the exercises. A copy of the plan is posted up in the ship's duty cabin.

Considering the specific character of the cruise, general physical development and also the development of endurance, quickness, strength and flexibility are taken into account in the variants of the exercises. For instance, one of them is directed at preserving and raising general physical condition. It makes use of walking, running, putting up exercises, exercises to develop resistance to sea-sickness, concentration, coordination of movements, a set of free exercises, exercises for the lumbar region, legs, body and exercises to relax the group of muscles subjected to the load.

In the variant aimed at developing endurance and quickness, drilling, making time and running on the spot, complexes of exercises, running on the spot with acceleration and respiratory exercises are used. It is absolutely necessary to alternate the medium and quick tempos in running as well as in free exercises.

The variant directed at mainly

developing strength and flexibility calls for exercises by pairs or on sporting apparatuses or ship's structures, and also with dumbbells, expanders, rubber straps, etc.

Weather permitting, swimming and boat rowing may also take place during the exercises.

The number of variants is determined according to the conditions on the ship, efficiency of the starshinas, the type of cruise and other peculiarities.

The dress to be worn for the exercises is determined by the chief of physical training and sport together with the doctor, depending on the climatic conditions of the planned area of the cruise, the men's degree of steeling, the temperature of air and the force of wind. The high humidity of sea air raises the caloric exchange of the organism and makes it more sensitive to the changes of temperature, especially cold. With due regard to this the following dress is recommended: shorts and plimsols (shoes, bare-footed); trousers and bare trunk or sleeveless vest (sailor's vest), shoes; overalls (sailor's vest), shoes; overalls, shoes, head-gear, and if necessary gloves.

The dress is announced for each day by the officer on duty. It is he who controls the conduct of the exercises. The ship's doctor and other officers regularly check the correctness of the ordered dress, the observance of safety measures, the sequence and quality of the exercises, the dosing of the exercises and the physical load.

LOGISTICAL SERVICES AND SPECIAL TROOPS

LOGISTICAL SUPPORT IN COMBAT

Moscow SOVIET MILITARY REVIEW in English No 9, Sep 80 pp 19-21

[Article published under the heading "Combat Training" by Col G. Ivachenko:
"Logistical Support"]

[Text]

A well-known feature of modern all-arms combat is fluidity of the situation involving action on a wide frontage, to a great depth and at high speed. In such circumstances an increasingly important role is played by logistics because it then has to provide military operations with a greater amount of supplies including missiles and other ammunition, fuel, foodstuffs and the like. Besides, the logistic personnel have to remove from the battlefield and rehabilitate armaments, armoured and other vehicles and also to collect and evacuate the wounded and sick casualties.

The changed specifics of modern battle made it necessary to improve the organisation of logistics and methods of its work. Today logistic units and subunits are provided abundantly with motor vehicles and other equipment necessary to cope with their missions. They are highly mobile and can move at high speed, thus being able to ensure uninterrupted material and medical support of the forces.

Logistic subunits have various duties. For instance, motor transport subunits are used to carry supplies, deliver them to the forces, evacuate the wounded and sick as well as to remove disabled weapons and equipment from the field of battle.

Repair subunits remove damaged equipment

from the battlefield and carry out repair and maintenance work.

Medical units collect and evacuate the wounded and render medical aid to them. They also take sanitary measures, carry out prophylactic treatment against epidemics and provide the forces with medical supplies.

The purpose of depot units is to receive supplies, store them, take stock of and issue them. The logistical system also includes field bakeries to bake bread for the forces.

Administrative platoons service the system of command, supply hot food and drinking water to subunits which have not their own field kitchens, and repair clothing and equipment.

Supply platoons provide fighting units with ammunition, hot food and the like.

Logistic subunits' composition, capabilities and provision with transport vehicles and other equipment depend on the subunits being served and also on the amount of work to be carried out in order to provide in time the necessary material, technical and medical support for the forces in the field.

Modern logistical structure is determined by the combat missions assigned, the battle formation assumed and the conditions (terrain, season of the year and time of the day) in which logistic

subunits have to operate. To make logistic subunits ready for operation, it is necessary to deploy them properly and to bring them closer to the fighting troops so as to ensure their timely and uninterrupted support, to choose and clear supply and evacuation routes and take security measures.

Being prepared for operation simultaneously with the fighting troops, logistic subunits are formed, provided with weapons and combat equipment, protective means and material supplies. Measures are also taken to make transport vehicles and medical aid stations ready for use.

In battle logistic subunits' deployment and transfer depends in the first place on the combat missions assigned, terrain conditions, the roads available and the possibility of using natural covers and shelters.

The distance separating logistic subunits' departure areas from the fighting troops should be proportional to the depth of the battle formation. For instance, in the offensive logistic subunits approach the front line as near as possible to be able to supply fighting units uninterruptedly. Measures are also taken to provide logistics echelonment in depth. In these circumstances it is necessary for medical and repair-recovery subunits and also transportation facilities with ammunition and other supplies to move closer to the fighting troops.

However, there are cases during tactical exercises when some commanders, trying to facilitate the control of their logistic subunits, order them to form a single column. As a result, the operational efficiency of logistical support is impaired.

Logistic subunits change their position to meet the requirements of the situation and strive to give exhaustive support to the fighting units. In the offensive they have to make halts in order to carry out the necessary work.

Material support is organised to supply fighting subunits abundantly and in good time with weapons, combat equipment, ammunition, fuel and so on.

Material supplies are carried by individual soldiers (tanks, guns, IFVs) and also by the transport vehicles of a logistical subunit. On a unit commander's order the standard stock level may be increased. Stocks of supplies must be replenished immediately from the higher logistical channel.

Stocks of material supplies are usually replenished both before and after and, if necessary, during battle.

During military operations the personnel are served three meals a day. In a complicated combat situation the personnel's ration may include two hot dishes and hard concentrated food issued to them in the interval between the meals. It

is advisable that the personnel be fed during a lull in the fighting.

While battle is in progress field kitchens are brought closer to the fighting subunits and placed under cover. Sometimes food is supplied to the men in vacuum flasks by specially appointed personnel.

Subunits' timely supply with fuels and lubricants is of great importance now. The time and place of vehicle fuelling are specified by the commander. There are also cases when only some vehicles need fuelling. In both cases this work is done while the vehicles are in battle formation and, preferably, during lulls and hours of darkness. Each vehicle must be provided with a fuel reserve. To speed up the fuelling procedure during a battle, it is advisable for fighting subunits to have fuelling vehicles attached.

Medical support is provided to improve the men's health and also to give them the necessary treatment and bring them back into action.

The wounded and sick are collected, removed from the battlefield and evacuated by medical personnel and transport vehicles. The wounded are removed from the battlefield by regular and supernumerary medical aids and by the medical subunit personnel. Besides, additional manpower and equipment may be detailed for this purpose on the commander's order. During the Great Patriotic War in addition to general-purpose vehicles, fighting vehicles were also sometimes used for medical evacuation. Today these transportation facilities can be supplemented by helicopters.

Logistic subunits move along the specified supply and evacuation routes when changing their positions, delivering supplies or giving technical and medical support.

Small subunits are given logistical support along their routes of advance.

Security measures are taken to protect logistic subunits from the enemy, thus preserving their personnel, combat equipment, transport vehicles and supplies. Their purpose is to neutralise mass destruction weapons, enemy air and ground attacks and to ensure immediate protection for logistic subunits themselves, their supply and evacuation routes and transport vehicles when they are on the move.

The experience of the Great Patriotic War shows that logistics defence and security can be provided by logistic subunits operating with motorised infantry, tank and AA subunits.

Logistics control has become much more complicated owing to the highly dynamic character of modern battle. This is because success in fulfilling combat missions depends largely on the logistic subunits' ability to replenish stocks of supplies of the fighting troops without fail, to reco-

ver and rehabilitate disabled equipment quickly and to give medical timely aid to the wounded, and also on their ability to move at high speed and to protect themselves from air and ground attacks.

Logistics control is based on the commander's decision for the conduct of military operations and on his instructions on logistical support.

Proceeding from his decision the commander gives instructions specifying the following: stock level, the date by which stocks of supplies must be built up and where, the priority and rate of stock consumption, logistic subunits' location, priority of their movement and security measures; time and priority of serving hot dishes to personnel; maintenance of weapons and equipment including vehicle fuelling, recovery and repair; the procedure for collecting and evacuating the wounded and sick; establishing communication between command and observation post and logistic subunits.

Today the logistical service has to fulfil a great

variety of missions and to carry out an immense amount of work in rendering material, technical and medical support to the fighting troops. All this makes exceptionally high demands on modern logistics, which now has to operate in radically new conditions compared to past wars. Commanders must show high operational efficiency, be able quickly to assess the situation, take a decision and convey it to their subordinates.

Modern battle requires a great amount of supplies (ammunition, fuel, foodstuffs) to be delivered to the fighting troops. In this connection particular importance attaches to logistical planning, commanders' and officers' knowledge of the specifics of the operations being carried out, their ability to estimate the situation, foresee all likely changes in it, take sound decisions and effect logistical control without a hitch.

To cope with all these missions specialists in logistics must possess high professional skill and the ability to carry out their duties in most complicated conditions.

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MILITARY SCHOOLS AND ACADEMIES

ARMORED TROOPS ACADEMY: 50TH ANNIVERSARY CELEBRATED

Moscow SOVIET MILITARY REVIEW in English No 9, Sep 80 pp 2-7

[Interview of Academy Chief Mar Arm'd Trps O.A. Losik: "Armoured Troops Academy"]

[Text]

The Order of Lenin and Order of the Red Banner Academy of the Armoured Troops named after Marshal of the Soviet Union R. Ya. Malinovsky is celebrating the 50th anniversary of its foundation. On this occasion Marshal of the Armoured Troops O. A. Losik, chief of the academy, granted an interview to a correspondent of "Soviet Military Review."



Comrade Marshal of the Armoured Troops, would you please tell our readers about the foundation of the academy?

In May 1930 a department of mechanisation and motorisation of the Workers' and Peasants' Red Army (that was the official name of the Soviet Army at the time) was formed within the framework of the F. E. Dzerzhinsky Military-Technical Academy. In two years the department trained 137 tank engineers. Despite this, the problem of training specialists in this field was not yet completely solved and continued to be acute. Therefore, in May 1932 the Revolutionary Military Council issued an order on the formation of an Academy of Mechanisation and Motorisation on the basis of the existing department of mechanisation and motorisation and the Moscow Motor-Tractor Institute.

By 1940 the academy had trained several thousand commanders and military engineers, who formed the skeleton of the command and engineer personnel of the tank forces.

On February 22, 1941, the Presidium of the USSR Supreme Soviet awarded the academy the Order of Lenin on the occasion of the tenth anniversary of its foundation and for its services in training personnel for the armed forces. This was a high appraisal of the work of the academy which, in a brief period, became the main centre training highly skilled specialists for the armoured forces. These officers played a very important role during the Great Patriotic War of 1941-45.

Would you kindly tell us about the work of the academy during this period?

During the Great Patriotic War the academy was called upon to carry out missions of great importance and responsibility. It was necessary to analyse, generalise and introduce into the instruction process in a very short time the experience in combat employment and technical maintenance of tank units, formations and armies. At the same time the front needed officers.

During the war the main departments graduated over 3,000 commanders and engineers. Counting the officers who attended the academic extension courses the academy trained about 8,000 tank officers.

The war saw the organisation of new tank schools and extension of the existing ones. It was necessary to train instructors for them. The academy accomplished this mission too. Special three-month courses were organised for the purpose.

The academy conducted extensive scientific research concentrated entirely on meeting the needs of the front. Its research work formed the basis for a series of manuals on the use of tank and mechanised formations in the main forms of combat. Among these were the Armoured and Mechanised Force Field Manual and the Armoured and Mechanised Force Logistics Service Manual. In addition, the academy worked on improving tanks, motor vehicles and tractors and developing and modernising maintenance equipment for tanks.

It organised scientific conferences for the study and generalisation of the experience of the war. These were attended by commanders of tank armies and tank and mechanised corps. These conferences worked out recommendations for academic and scientific research work.

Many distinguished tank commanders and engineers and eminent Soviet military leaders graduated from the academy. Among them were General of the Army I. D. Chernyakhovsky, a wartime front commander, General of the Army S. M. Shtemenko, chief of operations of the General Staff, Generals V. M. Badanov, S. I. Bogdanov, V. T. Volsky, M. Ye. Katukov, I. T. Korovnikov, N. P. Pukhov, A. G. Rodin, M. D. Sinenko, V. I. Chuikov — all wartime army commanders.

Generals A. A. Yepishev, A. M. Krivulin and P. M. Latyshev were members of military councils. Over 100 graduates from the academy commanded the armoured and mechanised forces of fronts

and armies, 29 commanded tank and mechanised corps. Over 200 graduates were honoured with the title of Hero of the Soviet Union. Of these ten became twice Heroes of the Soviet Union.

In 1965 the academy was awarded the Order of the Red Banner for its great contribution to the training of officer personnel during the Great Patriotic War and the postwar period.

The postwar scientific and technological revolution has worked profound qualitative changes in warfare. How has it affected the process of instruction and training of officers?

Practical experience has shown that the scientific and technological revolution in warfare has above all influenced the qualitative development of weapons and other combat equipment.

New types of weapons, in turn, have caused changes in the tactics, operational art, strategy and organisation of forces. But these changes do not occur overnight. They take place with the gradual improvement of new weapons, with their introduction in the forces on a mass scale, i.e. when they become one of the main means of warfare.

Thus, the appearance of a small number of inefficient tanks on the battlefield of the First World War did not introduce any fundamentally new elements into tactics, not to speak of operational art. At the time they were mainly employed within the framework of prevailing methods of warfare. But 20 years later tanks appeared in the forces on a mass scale. This called for serious changes in the organisation of forces, and also in tactics and operational art. During the Second World War tank formations and even tank armies were formed. These became the main striking force of the land forces. These factors and the introduction of other means of armed struggle imparted a dynamic, highly mobile character to military operations.

An important feature of scientific and technological progress today is that, while it exerts a tremendous influence on the qualitative improvement of weaponry, it has largely changed the relationship between man and military equipment and the character of military labour. In military development it is becoming more and more essential not only to adapt weapons to the man behind them, but also to adjust man's capabilities to the improved military equipment.

New weapons call for high specialised training, creative thinking, a self-reliant approach to the accomplishment of practical tasks, all-round development of man's intellectual and physical potentialities.

In addition, some of the new weapons have become so sophisticated that the services of scientists are required for their maintenance and operation. At the same time many of the officers in the field who have mastered the latest weaponry and combat equipment become competent in certain spheres of science. As a result, they become scientists.

Scientific and technological progress has helped to introduce into warfare on a broad scale means of automation and mechanisation which are employed in troop control, administration, training and education of personnel.

The academy takes these changes into account in the process of instruction. Modern equipment, including electronic computers, means of automation and mechanisation of troop control, is widely used at lessons, exercises and drills.

The academy is staffed with experienced instructors and eminent scientists. What are the typical features of their work?

The faculty have concentrated their efforts on organically combining high theoretical training of officer students in operations and tactics with profound knowledge of engineering in weaponry and other combat equipment, and with a high level of proficiency in field training.

To meet present day requirements a tank officer must know a lot and acquire many skills. Take the structure of tanks, for instance. It appears simple only at first glance. In actual fact it is very complicated. Suffice it to say that a modern tank comprises dozens or even hundreds of instruments, sensors, mechanisms, electronic units, and highly sophisticated optical devices. Of course, the officer students know all this, because they already have considerable experience in command of subunits and in the employment of all these things in various forms of all-arms combat.

While they are studying at the academy, the officers must not only learn the new equipment in every detail and master the latest achievements in military science, but also acquire a highly scientific understanding of all this. One of the main purposes of study is to impart to commanders and military engineers skills in research, creative thinking in control of forces. It is not fortuitous

that upon completion of the academy quite a few of its graduates have become eminent scientists and designers of Soviet tanks and other AFVs, and have continued to work at the academy.

In addition to being proficient in warfare and technology, the officer students must be steered ideologically. They must become competent in educating the personnel. We pay special attention to developing high moral and combat qualities in our officer students.

The academy is adequately provided with modern equipment, experimental and field training facilities. All disciplines are taught with the help of TV equipment and various automatic training systems.

The faculty of the academy includes 25 doctors of science and professors, 270 candidates of science and assistant professors. P. D. Gudz and N. G. Orlov, D. Sc. (Military), I. Ye. Krupchenko, D. Sc. (History) have been awarded the honorary title of "Merited Worker of Science of the Russian Federation," G. Yu. Stepanov and M. I. Maryutin, D. Sc. (Technology), the title of "Merited Worker of Science and Technology of the Russian Federation" for achievements in research and development.

What are the command and faculty concentrating their main efforts on at present?

On the eve of the 26th CPSU Congress we concentrate our efforts above all on training highly qualified tank officers and improving the quality and effectiveness of scientific research.

The process of instruction is designed to train commanders competent in training units for battle, in controlling subunits and units in any conditions of all-arms combat, and in effectively educating their subordinates.

The academy researchers continue to study problems bearing on the character of a future war (should the imperialists attempt to unleash it), working to develop theory in preparing and conducting battle and military operations. They are also working on problems in the development of equipment, the theory of combat employment, logistical and other support and organisation of tank troops. They have produced many scientific works, including "Tanks and Tank Troops," "Tank Theory," and "Tank Operation."

The academy trains highly qualified tank officers not only for the Soviet Armed Forces. You will find officers from the armies of the Warsaw Treaty countries. That the academy has made a tangible contribution to strengthening combat

cooperation between the fraternal armies is confirmed by its having been awarded Orders by several socialist countries.

To accomplish the tasks set before the academy the command and faculty must meet rigorous requirements. In an effort to ensure a high level in training officers, the members of the faculty constantly improve their own knowledge, they study the generalised experience in combat and operational training of the forces and staffs, actively participate in research in present-day problems bearing on military science, creatively and competently introducing all new and advanced developments into the instruction process.

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PERCEPTIONS, VIEWS, COMMENTS

COMMENTS ON 'MYTH OF THE 'SOVIET THREAT''

Moscow SOVIET MILITARY REVIEW in English No 9, Sep 80 pp 47-49

[Article published under the heading "Military History" by Maj Gen M. Monin, D. Sc. (History), professor: 'Behind the Myth of the 'Soviet Threat''']

[Text]

Every time the imperialist countries embarked on a new round in the arms race or prepared for military provocations against the Soviet Union and its allies, the myth of a "Soviet military threat" was always brought into the picture. It pursued the aim of undermining nations' trust in Soviet foreign policy and of masking its own aggressive plans.

The facts of past and modern history have shown, however, that the real military threat has invariably emanated from international imperialism, the USA in particular. American ruling circles have also been the main organisers of noisy campaigns of slander surrounding a "Soviet military threat." In a "Pravda" interview this past January, Leonid Brezhnev assailed the hypocritical "disquisitions about the 'Soviet threat to peace' and the attempts to pose as guardians of international morality on the part of those whose record includes the 'dirty war' against Vietnam, who did not lift a finger when the Chinese aggressors made their armed intrusion into socialist Vietnam; who have been maintaining a military base on Cuba contrary to the will of the Cuban people and government for decades; who are engaged in sabre-rattling, threatening to impose a blockade and exerting open military pressure on the revolutionary Iranian people..."

It is now known for sure from recently declassified documents of the US war department published in the United States that since 1945 high-ranking political and military officials in Washington were working out versions of a US invasion of the Soviet Union and European socialist countries. Hardly had the Second World War ended in September 1945 than the Joint Chiefs of Staff finished preparing a directive which read in part that the US Armed

Forces were to be ready to take swift and effective military actions wherever necessary. Military actions against the Soviet Union were mentioned here. It was also planned in case of necessity to "make the first strike."

This plan appeared at a time when the USSR was just beginning to restore the country's economy which had suffered severely from the Nazi onslaught. Almost 8,500,000 servicemen of the Soviet Armed Forces were demobilised to resume peacetime labour. Soviet troops were withdrawn from Bulgaria, Czechoslovakia, Yugoslavia, the northern regions of Norway and the Danish island of Bornholm, all of which they had liberated. These facts strongly indicated that the Soviet people and their government were entertaining no thoughts of war. This was also admitted by American military circles at the time. US Joint Intelligence Committee report No. 329/1 of December 3, 1945, stated flatly that the Soviet Union was incapable of attacking the continental United States in the near future, and that nothing threatened the latter for the next 10 to 15 years.

None the less, the Pentagon intensively prepared its plans for an invasion of the USSR with the use of atomic weapons, which the US alone possessed in 1945-46. The Joint Intelligence Committee document No. 329 of November 3, 1945, set the task of selecting approximately 20 of the most important targets suitable for strategic atomic bombing of the USSR and on "territory controlled by it." Chosen for bombardment were regions with the greatest population density, industrial areas, scientific and research centres and state and administrative institutions. It was planned to drop 196 atom bombs on 20 cities, including Moscow, Leningrad, Gorky, Baku, Sverdlovsk, Novosibirsk and other major industrial and scientific centres. The US expected

to have England, France and Turkey as its allies in the attack on the USSR.

The USA justified its monstrous plans for the atomic destruction of the USSR with the hypocritical contention that it sought to "deprive the USSR of the capability of imposing its own will on other great powers and to thwart the USSR's world domination." In reality, however, it was at this time that US President Harry Truman in the State of the Union Message of December 19, 1945, officially set forth American claims to world hegemony. He stated that to the United States has fallen the burden of the permanent responsibility of leading the world and that it was full of resolve to preserve its role as the leader of all nations.

The American imperialists could not carry out their outrageous plan of aggression against the USSR right away. The deeds of the Soviet soldiers, who had saved Europe from Nazi enslavement were too fresh in the minds of the peoples of the USA, England and France to convince them that the USSR had suddenly turned from a faithful ally and the most effective force of the anti-Hitler coalition into an enemy.

However, the preparations for an invasion of the USSR and other socialist states continued. In the late 40s American military headquarters came up with one variant of war against the Soviet Union after another. These plans took account of the peculiarities of the rapidly changing international situation, including the formation of aggressive military blocs of imperialist countries, as well as the balance of power in the world, one which was not to the liking of US imperialist circles and their allies.

Thus, on August 18, 1948, there appeared National Security Council document No. 201 which envisaged the "overthrow of the Soviet government" through extensive subversive actions and a direct invasion of the USSR. The concrete plan of its implementation was code-named "Charioteer." This time nuclear strikes were to be made within the course of a month on 70 Soviet cities; 133 atomic bombs were to be dropped, including 8 on Moscow and 7 on Leningrad. The entire war was expected to last 2 years, and another 300 atomic and 250,000 tons of conventional bombs would be used. "Charioteer's" authors were confident that following such a massive bombardment the USSR would capitulate and socialism would be wiped off the face of the earth.

There were other plans for aggression against the USSR, under different code names. Under the "Trojan" plan, for example, war was supposed to start on January 1, 1950. Its scope surpassed everything that had been planned to date. Military operations were to be carried out across virtually the entire territory of the USSR. Approximately 300 atomic bombs were to be dropped on 100 Soviet cities during the first three months. This plan had to be scuttled, however. According to the declassified documents, the authors of the aggressive plans were forced to recognise the patriotism and courage of the Soviet people, their dedication to the cause of socialism and

their readiness to fight for the Socialist Homeland. They came to the conclusion that the Soviet Union was capable not only of holding out, but also of decisively repelling aggressors, including a retaliatory nuclear attack (the USSR had successfully tested the atomic bomb in September 1949). The US military and political circles began searching for new ways of achieving their aggressive goals.

The Pentagon decided to draw the NATO countries and several other states which did not belong to military blocs into aggression against the Soviet Union on a wide scale. The war against the USSR was to take the form of a united campaign of all forces of international reaction headed by the United States. The task was set of unleashing a new world war using all available means of destruction.

Under the plan code-named "Dropshot" * elaborated in 1949, this war was to begin on January 1, 1957. The first blow to the USSR was to be struck by forces of the USA and European NATO countries. Later, depending on the situation at the front, other states would enter the war. The invasion was supposed to be launched through all of Western Europe and Western Asia while effecting a strategic defence in the Far East. During the air strikes, which were to precede the advance of land forces, it was planned to drop over 300 atomic and 250,000 tons of conventional bombs capable of putting 85 per cent of Soviet industry out of commission on vital industrial, military and administrative centres of the USSR. Following the defeat of the Soviet forces, the land forces of the invaders were to occupy the USSR and the other socialist countries. "Dropshot's" authors figured that all of this would pave the way to world domination for the American imperialists and would spell the end for the world revolutionary and national-liberation movements.

In arrogating itself the function of world gendarme, the USA became the main danger for all revolutionary and liberation forces, and for all peace-loving peoples.

"Dropshot" was a direct manifestation of the aggressive strategy of the "massive retaliation" which underlay US military doctrine in the 50s. Toward the end of the 50s, however, the alignment of forces in the world changed even more in favour of socialism. In addition, the USSR and its allies, forced to render themselves secure, and seeking to save the world from a catastrophe, had significantly bolstered their defence capability by that time. In 1953 the USSR tested the hydrogen bomb, which raised its military capacity to a new level. Following the signing in Warsaw in May 1955 of the Treaty of Friendship, Cooperation and Mutual Assistance, a solid military-political alliance of socialist countries took shape, which

* Dropshot. The United States Plan for War with the Soviet Union in 1957. Edited by Anthony Cave Brown. The Dial Press (James Wadsworth), New York, 1978. (Plan Dropshot).

became a mighty barrier for the imperialist aggressors. In 1957 the Soviet Union successfully tested the intercontinental ballistic missile, and the USA was forever deprived of its former invulnerability in case of war. The US' reliance on total war incorporated in the "massive retaliation" strategy now became an impossibility.

In the early 60s the US was forced officially to denounce the "massive retaliation" strategy and to replace it with a "flexible response" strategy. It also provided for American imperialism to achieve world domination through military force, but in combination with foreign policy, economic, ideological and other means. At that time Washington officials had worked out the concept of "limited" or local wars. The US' predatory war in Indochina (1965-72), which fully exposed the repulsiveness of American imperialism and the US military machine, is a typical example of the "limited" wars proclaimed by Washington.

The "flexible response" strategy failed as a result of the disgraceful defeat suffered by American imperialism in Vietnam, Laos and Cambodia (now Kampuchea).

At the threshold of the 70s nuclear parity was achieved between the USSR and the US. An entirely new situation took shape for American imperialism in which its ability to carry out a policy of diktat in the world was lessened. The USA did not abandon its aggressive plans, however. The strategy of "realistic intimidation" it came out with in 1971 was designed to facilitate its implementation.

Today Washington changes from the strategy of "realistic intimidation" to the "strategy of preventive nuclear blow" at the so-called military objectives on territories of other countries and, first and foremost, of the Soviet Union. This "new nuclear strategy" was recently sanctioned by President J. Carter in his "directive No. 59," which aroused indignation among the Americans and the world public at large. Supported by its NATO allies and the Maoist leaders of China, the USA proceeded to undermine détente, peace and the right of nations to be the masters of their own destinies. It has set out to prepare for war and to organise military provocations.

It is with this goal in mind that the USA is broadening the network of its military bases on foreign territory, despite thousands of such bases already emplaced in do-

zens of countries. This is also served by the maintenance of a huge military machine within the framework of the North Atlantic bloc (upwards of 80 divisions, 17,000 tanks, 8,000 combat planes and just under 1,500 warships). The USA and other NATO countries are beefing up their defence budgets. From 1949 to 1978 they spent 2.6 trillion dollars on preparations for war, and they plan to allocate another trillion dollars for this purpose in the 1978-83 period. The decision of the session of the NATO Council to deploy new American medium range nuclear missiles in West European countries is of an aggressive nature. The USA is forming a 110,000-man "rapid deployment force" designed to be the instrument of military interference in the internal affairs of other states and peoples. The Carter Administration has pigeon-holed Senate consideration of the Strategic Arms Limitation Talks (SALT-2). The USA and China are carrying out vigorous subversive actions against Afghanistan, arming and training counter-revolutionary bands and mercenaries in Pakistan and sending them into Afghan territory. US leaders are openly threatening to use armed force against peoples and countries which do not wish to bow before the diktat of American imperialism and who are fighting for their rights.

The goals of the latest slanderous campaign surrounding the "Soviet military threat" which imperialism is mounting ever more extensively, are clear. As in the past, the imperialists are drawing heavily on it in stepping up the arms race, elaborating aggressive plans for a new world war and organising provocations against peace-loving peoples.

Amid these complex circumstances on the world scene, the USSR's policy still remains unchanged. It was affirmed anew by Leonid Brezhnev on February 22, 1980, who stated: "Nobody will be able to intimidate the Soviet Union. Our strength and possibilities are tremendous. We and our allies will be able to stand up for ourselves and rebuff any hostile sallies. And nobody will succeed in provoking us. To the 'doctrine' of military hysteria and frenzied arms race we oppose the doctrine of consistent struggle for peace and security on Earth."

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PERCEPTIONS, VIEWS, COMMENTS

COMMENTS ON ANTI-SOVIET POLICIES OF NATO

Moscow SOVIET MILITARY REVIEW in English No 9, Sep 80 pp 50-52

[Article published under the heading "International Affairs" by Col V. Katerinich: "Militarist Fumes in NATO"]

[Text]

The less imperialism is able to lord it over other countries and peoples, the fiercer is the reaction of the most aggressive circles. The consolidation of the positions of peace and détente in international relations is not to the liking of the most militant representatives of imperialism, in the first place of US imperialism. They spare no efforts to freeze or to frustrate the talks on problems of disarmament now being carried out, and have taken the provocative decision to deploy in West Europe new American missiles directed against the USSR.

Having imposed its "missile" plans to the countries of Western Europe, the USA turned to Asia. It moved large forces of the fleet to the coasts of revolutionary Iran. And then it seized what seemed to it a favourable pretext — the events in Afghanistan. The malicious anti-Soviet hulla-balloo raised in this connection in America and other NATO countries probably breaks all previous records. Its main purpose is to camouflage the aggressive preparations of the USA and its NATO allies which jeopardise the cause of peace.

The character of the anti-Soviet propaganda in the NATO countries and their armed forces testifies that it is being carried out according to a broad and well elaborated scenario, and is coordinated as regards forms and methods as well as content from a single centre. This propaganda is carried out with the aim of feeding into people's minds imperialist stereotypes on the source of military danger, on the essence of the NATO countries' policy, on the cause, and nature of the national-liberation struggle.

The military-industrial complexes, wielding enormous power and influence in the NATO countries, have succeeded in reanimating the line of increasing military might, sharpening rivalry and confrontation and boosting military preparations. The militarists want to put an end to détente, to return the world to the time of the cold war.

Since such a policy runs counter to the interests and aspirations of the peoples, the imperialists have once more brought into play fabrications about a "Soviet military threat," a "disbalance of forces," a "necessity of catching up in armaments," etc. They act according to the old recipes of ill-famed US State Secretary J. F. Dulles, who already in the 1950s urged: "In order to make the country to bear the burden we have to create an emotional atmosphere akin to a war time psychology. We must create the idea of a threat from without."

If the NATO propagandists were the slightest bit objective, they should admit that the Soviet Union was never an initiator of the arms race; such initiators have always been the USA and its allies. While the USSR and other countries of the socialist community have been constant initiators in the struggle for disarmament, the USA and other NATO countries do not yield the initiative in the arms race. The USSR did not create and is not creating military-political blocs around other states, as the USA is doing. The USSR has no military bases on the territories of other countries, whereas the USA has set up beyond its borders a whole network of such bases aimed against the Soviet Union and other socialist countries. The USSR has never set itself the task of achieving military superiority over the West, while in the USA and NATO the establishment of military superiority over the USSR has been declared the main purpose of state policy.

To speak about the threat on the part of the USSR is to turn everything upside down, to deceive public opinion intentionally, to mislead it as to the source of war, to camouflage the aggressive essence of the military preparations of imperialism.

Towards the end of 1979, the militaristic psychosis in NATO was heated to white under the deliberately invented pretext that the Soviet Union had violated strategic parity.

And although the head of the Soviet Government L. Brezhnev had declared a unilateral reduction by the Soviet Union of its armed forces deployed on the territory of the GDR by 20,000 officers and men and 1,000 tanks, and readiness to begin negotiations on reduction of a number of medium-range missiles, the NATO leaders did not heed the voice of reason. "Violation of strategic parity" is only a pretext to prepare public opinion for the deployment of new types of weapons on the European continent.

The authors of numerous books published in the NATO countries, declare with an extraordinary ease that the Soviet Union and its Armed Forces are preparing to attack Europe, try to condition the servicemen and population of their countries to consider the USSR their enemy and at the same time think of a nuclear war as possible and permissible.

Lately, the USA, the FRG, Britain and other NATO countries have been making a habit of games with scenarios of military conflicts to make prognoses of a third world war. They present war as inevitable. Even the dates of the war are forecast. To remain within the domain of fact, here are some examples of militarist literature with which the NATO servicemen are abundantly supplied. Take, for example, the book "The Present Danger" by R. Conquest, published in 1979. The author practically rejects the possibility of peaceful coexistence of states with different social systems. He gives an extremely gloomy prognosis of the development of international affairs, declaring that there is no guarantee that a nuclear war can be averted.

For many years already that a book entitled "The Third World War" by General I. Hackett, former Commander of the British Army of the Rhine and the NATO Northern Group of Armies, a considerable authority in the bloc, has been a best seller. In order to make his concoction "convincing" the author refers the reader to his special knowledge and to schemes elaborated by NATO staffs. And as it is fiction he is producing he need not answer for any lies, piles up the most absurd fabrications about the Soviet Union and its policy and has no difficulty in bringing the nuclear weapon into action to stop "Soviet aggression."

"The Third World War. A Military Prognosis Based on Contemporary Facts" published in 1979 edited by Sheffield Bidwell is selling like hot cakes in the NATO countries. If in his book Hackett decided to deliver only single blows at the USSR, Bidwell goes further. He unleashes a war with the use of strategic weapons, spreads hostilities over land, air and sea and leaves no way out for mankind.

There is no limit to such a flow of militaristic literature in NATO. The titles of books speak for themselves: "Can We Avoid a Third World War?", "The Future of Soviet Military Power," "The Bear at the Back Door," "Warning and Response," "The Soviet Threat: Myths and Realities," and so on. These and other similar books certainly do not contribute to the solution of the most vital problems of the contemporary period — averting world war. On the contrary they incite the people to war, kindle hatred, foster adventurism.

In accordance with the global strategy of imperialism under the garb of demagogic talk about the "necessity to defend the vital interests" of capitalism in Asia, the Near and Middle East, Africa and other regions of the world, the "global responsibility" of the USA, Britain and other NATO countries, their "leading role and influence in the world arena," civilised mission, etc. are doggedly put across in NATO.

It is evident that fabrications of NATO propaganda about so-called "Soviet expansion" are also harmful to the developing countries. There the purposes of military ideologists of imperialism are clearly seen to be aimed at isolating the national-liberation movements from the USSR and other socialist countries and making them an easy prey to imperialist aggressors.

This became particularly apparent in Afghanistan. When events there took a totally different turn from what the imperialists had expected, when with the assistance of the USSR Afghanistan managed to avoid snare prepared by the imperialists, a hysteric anti-Soviet and anti-Afghan campaign broke out in NATO.

Or take Iran. While the Shah ruled the country with the help of bloody terror and American weapons, playing the role of the USA's lackey, NATO propaganda depicted Iran as a model of freedom and democracy. However, when the revolution had overthrown the hated regime of the Shah and put the country on the road of independent development, slander and abuse were heaped on Iran. The USA began to unite against it all the forces of imperialist reaction, to prepare direct aggression in order to strangle the Iranian revolution.

Whether it is a question of Afghanistan, Iran, Nicaragua or Zimbabwe, in any case the struggle of these countries for social progress invariably meets resistance and counteraction on the part of the USA and its NATO partners.

An important role in militarist indoctrination of the armed forces and the population of the NATO countries is assigned to rousing chauvinistic sentiments. Use is made of intimidation, propaganda slogans such as "We Are Becoming a Second-Rate Power," "We Have Fallen Behind," "We Are Faced with Danger," "We Did not Display Firmness." Such playing on national feelings only goes to strengthen the bellicose "hawk" sentiments and tendencies.

The NATO propaganda machine also likes to exploit the desire of the world's peoples for peace. As a rule, the militarists pay lip service to détente, negotiations, but at the same time do all they can to prevent the establishment of a stable peace, not to allow deepening of détente, to frustrate it. This is not a simple game aimed at misleading public opinion, but a strategic concept. In accordance with it they consider that negotiations with the USSR should be seen not as a means of settling issues or achieving relaxation of tension but as a "step on the road to victory."

In keeping with these aims the NATO leaders today spare no pains to convince the public at large that negotiations with the USSR should be conducted only from positions of strength. However, it is evident that such an ap-

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Such a state of affairs can be explained by a direct appeal to the freedom of the press which has been one of the mainstays of ideologically influencing the masses. There is also the fact according to official data there are 66 thousand publishing houses functioning in the USSR with a weekly circulation of nearly 100 million copies, books and pamphlets. According to the most conservative estimates over 50 million copies of new, improved and cultural books are in circulation in the Federal Union of Germany.

A real goal of Mao's and his supporters is that the Peking leadership will ally itself (not merge) with the HSIU leadership. The Chinese leaders often repeat the words of Mao's of "high co-ordination" and are in touch with the bourgeois leadership of nationalism and capitalism in that part of the Peking leadership sometimes go even further than the South Chinese groups. They try to force on the party line the right of a "United Front" and the "theory" of the revolutionary war of a third world war.

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BOOK ON ATOM BOMB DEVELOPMENT REVIEWED

Reviewed: SOVIET MILITARY REVIEW in English No 9, Sep 66 pp 57-58

(Book review by I. Bessmertny, Cand. Sc., (History) of "Hiroshima" (Chiroshima): "Atoms bomb the Alarm")

[1966]

It is striking of the Hiroshima city clock is like an alarm signal. And its strokes are heard not at noon, but at 8.15 a.m. From day to day, year to year they remind us of the catastrophe when the first atomic bomb razed the city to ashes, when the very clock was reduced to dust, killed by the monstrous heat that reduced everything living to dust. They remind us of the atomic blast — all-dominating, all-destructive and implacable.

Thus begins the book "Hiroshima" written by Doctor of Law S. I. Litvinov and Doctor of Technical Sciences I. G. Marchuk. It is dedicated to the tragedy of the Japanese cities of Hiroshima and Nagasaki, subjected to the atomic bombings in August 1945.

In the preface to the book three names stand out: Joseph Stalin, President of the USSR Academy of Sciences, Academician A. P. Aleksandrov notes that the US atomic scientists, many of whom came to the USSR from Europe and when they were captured knew that Hitler Germany was develop-

ing plans and humbly noting that the Nazis would create atomic weapons before the war end, did everything possible to carry out similar work in the U.S.A. They began to work on the bomb guided by high motives: since a weapon was necessary in case Hitler Germany should acquire it first and use it on the battlefields.

In July 1942, U.S. President F. D. Roosevelt issued an order to begin work immediately on the creation of the atom bomb. It received the name of the Manhattan project and as early as December 2, 1942, under the direction of the famous physicist E. Fermi, an unusual and dangerous experiment was carried out in the United States — the controlled chain reaction of the nuclear fission of uranium. This experiment became a very important landmark on the road to achieving control over atomic energy. After it, for the first time, the scientists estimated that if one atom of coal produced the energy of 3 to 3 million volts, then one split atom of Uranium-235 would give the

energy to 200 million electron volts. It then became clear that the atomic weapon was a reality.

The authors write that the Americans, simultaneously with the search for and selection of specialists for work on the new weapon in their own country, were conducting a real hunt for secret agents for and technical information as well as for atomic scientists in Europe.

The book convincingly proves that the atom bomb, created in the U.S.A., was not only the achievement of American scientists and far from being only their brainchild, but was that of scientists from many countries.

It was known that the work to create an atomic bomb began in Germany earlier than in the other countries of the world. As became known later, when Hitler learned that it would take years to develop the new weapon he rejected the project and did not spend the necessary funds for it. He needed real weapons for the speedy achievement of world domination. And

which he regarded his starting point was already too late — 1942. Germans did not manage to create the famous "secret bomb".

But in the USA a group of scientists, headed by R. Oppenheimer, continued to work on the Manhattan project.

The war was coming to the end. When the American forces had occupied Strasbourg, the US military authorities created a large group of scientists (R1), who were working in the physical and chemical institutes of the Kaiser Wilhelm Society. They were taken to the USA. The intelligence organs managed to determine that the secret German laboratories, involved in developing the uranium project, were being concentrated south of Stuttgart, near the city of Heiden. This set off an alarm in Washington. Stuttgart happened to be situated in the centre of the territory that was to be occupied by the French.

There are a few lines in the book from the memorandum of General Groves, the leader of the Manhattan project. He does not deny that he was forced to start a "race" for creation, which afterwards received the name of operation "Downfall". Having heard that the Germans before the French, an American shock group captured and interned the prominent physicists O. Hahn, M. Lave and K. Weizsäcker. Documents were confiscated and the experimental uranium reactor was dismantled. Even the cover of the cliff where the reactor was installed, was blown up.

What did the USA need all that for? Was not the war practically over? It was perfectly clear that Germany had not had and could not have the nuclear bomb.

The fact is that the American politicians and military had decided to make the new weapon an instrument of political blackmail. That is why they were worried that the information concerning the development of the atom bomb

would get into the hands of the Allies. It is said in the book that on March 16, 1945, a few days before the Soviet Army captured Oranienburg, the plant, situated in the city, which manufactures metallic uranium was raided by 612 "flying fortresses".

In the middle of 1945, the Oppenheimer group completed the development of the first samples of the atom bomb. But by that time Nazi Germany had ceased to exist. It was then that the scientists addressed a letter to President Truman asking him not to use the atom bomb against Japan. Who knows, write the authors, how things would have turned out if President Roosevelt had been alive. It is known that he never broached the subject of its use when discussing questions connected with the new weapon.

He was inclined to think that international control, based on free exchange of all necessary information, should be established over this weapon.

Unfortunately, the idea of cooperation with the Soviet Union was buried together with President Roosevelt. Truman, as a politician, was by no means a fitting successor to Roosevelt. It was not for nothing that the late president not having a favourable opinion of his successor's abilities, did not trouble him with state affairs.

And now Truman found himself at the crucible of power. The powerful weapon was in his hands. He considered that the employment of the bomb against Japan would strengthen the position of the USA in the post-war period and justify the expense of creating the weapon, which reached the sum of 2.05 million dollars. He also considered that it would make it possible to pay back the Japanese for Pearl Harbour and the murder of American prisoners. It was immaterial to Truman that ordinary Japanese

people, the peaceful inhabitants of the cities of Hiroshima and Nagasaki would have to pay and not the real perpetrators of the war and the murderers of the Americans.

There was absolutely no need to use the atom bomb. By that time Japan was confronted by the powerful coalition of the Allies. Truman knew also that the Soviet Union was to enter the war against the Japanese imperialists. But it was precisely to intimidate the Soviet Union that the bombing of the Japanese cities was planned.

The scientists sent the president several petitions, trying to convince him not to use the bomb before the conditions of capitulation were placed before the Japanese. It was even suggested to carry out a demonstrative nuclear explosion on an uninhabited island. The scientists also wrote that if the USA was the first to use this new means of blind and brutal extermination, it would lose the support of world public opinion, accelerate the arms race and extremely hamper the possibilities of international agreement concerning future control over similar weapons.

But not a single petition influenced the policy of atomic blackmail.

The Japanese cities of Hiroshima, Nagasaki, Yokura and Niigata were earmarked for the practical testing of the first two atom bombs made in the USA. These were cities with a large concentration of population and industry. The final choice of the target depended on the weather conditions at the moment of the bombing.

On August 6, at 0815 after visual aiming from a height of 10,000 metres an atomic bomb was dropped on Hiroshima and exploded at an altitude of 600 metres. As a result, nearly 200 thousand people were killed or were missing.

and 160 thousand wounded and subjected to radioactive irradiation. Fire did not stop for many hours within a radius of 4 kilometres from the epicentre of the blast. 62 thousand houses out of 90 thousand were destroyed.

On August 9, at 1101, a nuclear blow struck Nagasaki. 73 thousand civilians were destroyed and 35 thousand people died later from irradiation or wounds.

So the atomic weapon became an instrument of political blackmail.

One of the leaders of the American atomic programme, General Groves, stated that it would take the Russians from 10 to 15 years to create the atomic bomb. But it was already successfully tested in 1949, just four years after Hiroshima.

Why did the Soviet Union, after all, proceed with the creation of the atom bomb? Answering that question in the preface to the book, Academician A. P. Alexandrov writes:

"We had no other way out: the Western states had begun their policy of atomic blackmail; it was necessary to counter their threats with real strength. And if today, due to the consistent implementation of Lenin's principles of peaceful coexistence of states with different social systems and the steadfast struggle for relaxation of tension, already for many years we have been living under a peaceful sky, great credit goes to those who gave our country a reliable and mighty weapon."

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PERCEPTIONS, VIEWS, COMMENTS

FRENCH SOURCE SUMMARY OF SOVIET MILITARY EXPORTS

Paris DEFENSE INTERARMEES in French No 57, Mar 81 pp 10-14

[Article: "Soviet Military Exports (1976-1981) A Brief Summary;" for related article see USSR Report: Military Affairs JPRS 77976, 1 May 81 No. 1586]

[Text] The USSR is beyond any doubt the principal exporter of military equipment, and although this fact is generally admitted, it is very difficult to back up certain assertions with precise figures. Three essential anomalies complicate research:

--the official silence and "corrected" statistics of the Kremlin. These same difficulties are equally present with respect to an approximate estimation of the Soviet military budget.

-- the active role played by satellite countries like East Germany and Czechoslovakia in exports. In fact, it would be more exact to lump together the military exports of all the Warsaw Pact countries under one common denominator: Moscow's foreign policy.

-- Soviet exports--quite frequently--are free of charge. They are then considered an "investment," intended to create a situation of moral debt and technological dependence on the supplier. However, the same result may be obtained by means of payment by a third party (for example: the 50 mig-27s promised to Syria in 1979 whose financing was to be underwritten by Iraq). This third party is not necessarily a political friend of the Kremlin and its financial role may perfectly well constitute an extension of its own political aims (for example: Saudi Arabia.)

According to a report of the CIA (cf DI No 34), Soviet military deliveries in 1978 amounted to a total of around \$4 billion, an increase of 0,7 billion over 1977. Already at that time, the total exports were 10 percent higher than those of the United States. For 1980, a total of \$6 billion is entirely plausible. These figures represent of course the estimated value of deliveries according to criteria based on manufacturing cost and comparisons with equivalent American systems and not the exchange value paid by the USSR. This same report specified two major zones of Soviet equipment delivery: the Middle East and the Horn of Africa.

If Western arms deliveries cover tension zones as well as peace zones, there is a constant factor in Soviet exports which makes it possible to verify two tendencies:

- Exports to unstable zones, where serious tension is expected in the near term.
- Exports to zones of increased tension (impending or on-going hostilities).

Judging from the map of conflict these last few years, it is rather clearly apparent that Russian shipments are part of an overall strategic plan. And one can never insist enough on the crucial importance of the total dependence of one nation--insofar as its military hardware is concerned--on another. President Sadat's Egypt is one of the few countries to have "turned the tide" and then only thanks to a very strong commitment on the part of the United States.

If in 1981 exports are still flowing mainly towards Africa, a new emphasis on South America, where Cuba has lost its leading role to Peru, must be noted. This first massive establishment on the American continent itself portends a new orientation for the 80s, especially if one considers that the USSR has practically achieved its objective of the 70s: control of the Straits of Hormuz and the unbridled development of its high seas navy.

While tracing over a 5-year period the orientation of Soviet military exports to Africa, Asia, and the American continent, we shall have scant recourse to precise figures concerning the amount of equipment ordered or delivered. We wish above all to give an overview of the systems (air, ground, naval) for it is through their special features that one can best ascertain Moscow's political will with respect to latent or on-going conflict.

1976

With the exception of the MIG-21s for Uganda and SU-22s for Peru, 1976 stands out by virtue of special emphasis given exports of ground equipment. Thus, Mozambique was equipped with T-34 and T-54 tanks, SA-7 missiles and artillery pieces. It was also during this year that the last large deliveries to Iran were made, almost all of the equipment which could be delivered before the fall of the imperial regime (SA-7s, SA-9s, ASU-85s, BMPs and self-propelling DCA ZSU-23-4s). The delivery of SCUD-B ground to ground missiles to Irak, in addition to T-62 battle tanks, is noteworthy for this type of equipment is seldom exported. In the current conflict between Iran and Irak, Teheran can not muster a similar system to oppose Baghdad. This gives a pronounced strategic advantage to the Irakis, even if the use of the SCUD-Bs is viewed as a psychological factor. Kuwait was to receive during this same year SA-7 missiles as well as artillery pieces. This constitutes an important breakthrough among the Persian Gulf countries. The major part of exports being concentrated on ground or air equipment, the delivery of Nanouchka missile-launching corvettes to India is worthy of note.

1977

In 1977, deliveries for Irak continued with the majority being air systems (MIG-21s, MIG-23s and IL-76s). Syria was also to receive MIG-23s in addition to T-62 battle tanks and several types of anti-aircraft missiles: SA-6s, SA-8s and SA-9s. While Libya only received several "F" type submarines, the USSR increased its efforts on behalf of Peru, aiming at a strong reinforcement of its army: T-62s, SA-3s, SA-7s

and artillery pieces. The delivery of AN-26 carriers and MI-8 helicopters portends the impending appearance of Soviet fighter planes on South American soil. In 1977, the new T-72 armored vehicle was exported exclusively to India, which plans to manufacture it under license starting in 1983.

1978

1978 was marked by an important multiplication of Soviet exports. This effort remained constant until the first half of 1980. In addition to its "traditional" customer Finland (MIG-21s, SA-3s, SA-7s and AN-26s), the USSR concentrated its efforts on South Yemen (MIG-21s, MIG-23s, SU-20s and OSA-2 missile-launching patrol boats) and Ethiopia (T-54s, T-55s, OSA-2s, BMP-1s and BTR-152s). Afghanistan was to receive only several PT-76s as well as MI-8 and MI-24 helicopters. The USSR already had no interest in reinforcing a shaky country and perhaps anticipated the danger of seeing its own arms turned against it. As for Libya, it received T-62 armored vehicles as well as several types of fighter planes, including MIG-25Rs, whereas Algeria only received SU-20 type ground attack planes.

1979

In 1979 are found, to begin with, an important series of deliveries to Ethiopia and South Yemen, with special emphasis on aviation for Ethiopia (MIG-17s, MIG-21s and MIG-23s) while the Yemeni army was reinforced by ZSU-23-4s, Frog ground-to-ground missiles as well as T-55 battle tanks. Another major reinforcement occurring this year was that of Iraq's air force (MIG-23s, MIG-25s, MIG-27s and MI-8s). This equipment effort is remarkable if the obvious importance of the air forces in light of the present conflict opposing this country to Iran is considered.

1980/1981

The USSR is continuing its deliveries to South Yemen (MIG-21s, SU-22s and T-55s), while a general slack in its exports is noticed. The rather tense international situation last year may explain this prudent policy. One will note nonetheless the delivery of Frog-7 ground-to-ground missiles to Kuwait and MIG-25s to India.

Since 1979/1979, the major share of exports has been centered on three countries: Iraq, Ethiopia and South Yemen. Even if systems of very different age (for example, T-55s, MIG-17s, MIG-23s and T-72s) are found in Soviet deliveries, this in no way detracts from their operational value. Indeed, a T-55 is far from outdated on the battlefield as long as it is not opposed by recent Western systems like the XM-1 or the Leopard-2. It would therefore be erroneous to suppose that the USSR wants to handily dump its military surplus. The export of this or that system is assuredly preceded by a scrupulous analysis of the contending forces and the real needs of the receiving country. This also leads the USSR to deliver--occasionally--NATO material, as was the case in 1977 with the shipment of 150 M-47 battle tanks to Ethiopia, armored vehicles purchased from a Western nation on an unofficial market, to be sure. It was also the USSR which was--to all appearances--the organizer, during the 70s, of the purchase of several Italian Leopards with Libya acting as middleman. The arms export policies of Eastern bloc countries have always aroused lively interest among nations wishing to obtain Western equipment

indirectly. It is thus rather surprising that a certain number of postwar coups d'etat were carried out with NATO equipment purchased in Eastern bloc countries. The USSR thus appears clearly as the number one exporter of military equipment. These exports serve both its strategic options and economic interests, as the case may be.

Another observation shows a certain prudence with regard to unchecked export of the most sophisticated systems. It appears overall that equipment cleared for export is at least one generation older, compared with systems encompassing high technology in use in the Soviet Armed Forces. Furthermore, there exist--especially in fighter planes--specific versions for export. Sending pilots and maintenance personnel to certain countries is explained not only by the flagrant incompetence of the autochthons, but above all by a desire to guarantee a certain degree of security around highly perfected systems. The United States moreover follows a similar policy (for example: the F-14 Tomcats in Iran).

An additional trump card for the USSR policy is its almost inexhaustible reserves of stockpiled equipment. Indeed, an outdated system is not demilitarized or destroyed, but stocked in order to equip reserve divisions as need arises or be sent to a consignee outside the Warsaw pact. In order to give an idea of this practice, about 10 years back, West German television broadcast a report on the Soviet Army. The most striking effect was to see territorial defense units roll by with Royal Tiger (Koenigstiger) battle tanks, whose production was halted by the fall of the Third Reich in 1945.

The USSR therefore possessed three fundamental trump cards to "win" over the largest possible number of military markets throughout the world:

- a pricing policy exempt from any notion of profit;
- a choice of equipment which makes it possible to offer an adequate solution to any military situation;
- almost inexhaustible reserve, backed up by constant production, particular to an economy essentially geared to military effort.

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